The Times and Register.

Vol. XXIV, No. 9 NEW YORK AND PHILADELPHIA, FEBRUARY 27, 1892. Whole No. 703.

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Original Article.

ON THE USE OF THE MICROSCOPE IN LA GRIPPE.

BY E. CUTTER, M.D., LL.D.
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INTRODUCTION.

IF you ask the question, "What is Grippe?" of those who treat this disease—which is so well known all over the globe as to need no introduction—the average reply would probably be: "It is a cold that comes and goes, affects large numbers of people at about the same time; sometimes makes them very sick and ache all over—sometimes with chills, fever, great prostration—usually with a very irritating and harassing cough, beginning with sneezing and with a profuse, more or less thin, acrid and watery, discharge from the air passages. It is contagious. Has been controlled by isolation. Occurs alone, but generally in connection with bronchitis, pleurisy, pneumonia and rheumatism. With those complications it is a very dangerous disease, and no doubt is a direct cause of death, especially when the system suffers from fatty degeneration in any part."

If you ask for the *conventional treatment*, probably antipyrine and phenacetine have had the greatest popularity. It is said that a fortune of millions of dollars was made in a few months in 1891, by the makers of the secret remedy—antipyrine—whose name gives no idea whatever of its constitution or manufacture. With impunity the Germans violate the American Medical Code of Ethics, which prohibits secret medicines.

There are many other modes of treatment fully laid out in the January 16, 1892, number of THE TIMES AND REGISTER, thanks to the medical gentlemen who have so ably responded to the call of the genial and talented editor, who inspired the idea of an "Influenza Number," and who is to be congratulated on his success. We give our contribution from our standpoint of view and experience, as one does when the contribution box is passed round in church, puts in his own money and not that of others, and to make it clearer and more concise we adopt the form of

AN ESOTERIC INTERVIEW.

Question. Is La Grippe a new disease?

Answer. No; it is known in history, and is more or less prevalent in the fall and winter.

Q. Does it prevail equally in all years?

A. It does not. No disease prevails equally from year to year, unless it is consumption or other food diseases. Probably all the time we are surrounded by causes of disease, grippe included, and resist them by our strength of constitution.

Q. Do you agree with the above description?

A. As far as it goes, but it does not go far enough to suit me. It does not include all the facts known. It describes the phases, but not the primal cause itself, which is a physical entity and not an abstraction nor spirit. In other words, in my opinion, there is a real living independent animal organism, which causes the irritation of the air passages, described in Kent, on "Infusoria," and in the "Micrographic Dictionary," of Falke and Henby, as the asthmatos ciliaris (Salisbury). It is a cilio flagellate infusorium that some have called a rhizopod, so common in our hydrant-waters. It is a jelly-like or protoplasmic animal that comes next the lowest order of all ani-

mals to wit, the amœba, which has no arms, no legs, no stomach, save as it makes them at will. The flagellar whips or cilia (like eyelashes) of the asthmatos ciliaris, are not arranged in a row like the eyelashes or the cilia of epithelial cells from the air passages, but stud the parts as the hairs do the pointed end of a grain of wheat or trees on a conical hill. Sometimes these cilia surround the globar body and radiate like light from the sun. (The late lamented Dr. Louis Elsberg, the father of American Laryngology, said if I would find a form with cilia radiate all around the circumference of the body, he would believe in the asthmatos ciliaris. In his presence a patient blew the nose, and the excretion was voided on a slide. Under the microscope, ×400, several typical forms were demonstrated alive and rocking, and one of these had cilia all around its periphery. He said he believed.) The cilia have automatic motions of their own in one direction, like the cilia of the epithelia in the air passages. The motion is so violent as to make the whole body rock backward and forward like the Chinese toy rocking images. When the asthmatos is in its composite form, that is, aggregated together in masses, as I saw them once in the case of my son, Dr. John A. Cutter, the cilia wave like a field of grain in a storm, *i. e.*, in windrows. But there is another motion when each cilium moves independent and not in unison with the others, forming a mazy dance and not moving the body of the asthmatos. This shows the autonomy or independence of each cilium, or that the animal does not need to move them together in time or direction—just as we move our fingers, together, separately, or in opposite directions, at will.

The cilia vary in number and length. In a young and active specimen they are about as long as the diameter of the globar body, *i. e.* about $\frac{1}{1000}$ inch. I have seen them three times as long.

The body of the asthmatos is usually like an orange, globar. Sometimes it is conical or pointed, and on this point are planted the cilia. Sometimes they are oval and oblong, in this case they are the older form and reproductive. Their modes of development are seen and are very curious. In this respect they excel man, their host, whom they torment, and who has but one mode of reproduction. I have seen the following; I don't know but that there may be more:

1. *By Budding.*—The substance projects from the periphery in one or more places, increases in size to finally break off, new individuals.

2. *By Cleavage or Fissure.*—Here the cleft begins on one side, or both opposite sides, and when complete, the mother cell is made twain.

3. *Gubernacular Mode.*—By one small part projecting from the mass in a globe just like the parent, while a string or gubernaculum of tissue connects the parent and child. By some power unknown, the child is pulled away from the parent till the string snaps about midway. That which is attached to the child is absorbed into the substance of the child; that which was attached to the parent is absorbed into the parent. I have seen the whole process of separation take over an hour's time. It seemed to me as if some invisible force pulled them apart, just as candy is pulled. Prof. Paulus Reinsch, Erlangen, Germany, who witnessed the phenomenon with me, said it was a new observation in biology. It is a modification of 1. But how they were pulled apart is a great mystery.

4. *Genesis from Within.*—Prof. Reinsch and myself saw in the secretions from the nose of a child two years old, suffering from the grippe, a young individual born. It was about one sixth of the long diameter of the parent, which was oblong. At first it lay close to one side of the parent within. In a straight line it moved to the middle of the parent and then to the opposite side from where it was at first. We saw it slowly emerge and become an independent being. It moved away of itself afterwards.

Besides being found in the excretions of the human air passages, the asthmatos has been found in the secretions of the eyes of grippe sufferers. I have seen it in the urine of such.

It has been said, 1892, to be found by a young physician in the blood, alongside of the forms in the nasal excretions, both claimed and published to be his discovery within a few days of the time I had told him to look for them. I have not found them in the blood; I think my student was mistaken; nor can I see how this, a ciliaris, could live in the blood stream. Still I much prefer the over-zeal and the assumption of credit of this young physician than to ignore the asthmatos altogether, as many have done, and also the well-written accounts given by the discoverer, Dr. Salisbury, and the corroboration given by the writer, as he had opportunity by microscope, lantern and press. I have not ceased to make known this important discovery in season and out, at home and abroad. Often have I shown the A. ciliaris to patients and physicians, demonstrating the forms also for the patient. I have photographed them with the $\frac{1}{16}$ inch and $\frac{1}{75}$ inch objectives, and thus procured slides for lantern projection.

I have shown these lantern-slides to the American Medical Association; to the Medical Staff of the Army, at Aldershot, England; to Sir Morell Mackenzie; to Oliver Wendell Holmes, LL.D., and in many other places. This is written to prove the intenseness and sincerity of my convictions. I have delighted to show them, as to me it is a beautiful thing in medicine thus to trace causes, remove them and cure disease. I can truly say "who hath believed our report?" and *cui bono?* Let me make my meaning clear by cases.

Case I.—A man now in the State Senate, whose family physician I had been when home in Massachusetts, met me and said with a hoarse, coughing and complaining voice, "Doctor, I have had this wretched cough for about four weeks. I have got tired of it. My doctors have given me cough medicines all to no account; I am sore from coughing. Can't you do something for me?" "Can't you spit up something?" I asked, and gave him a piece of white writing-paper, which is the very best thing to preserve sputum on when dry. He raised more than enough for a microscopic examination, which showed several mature forms of the asthmatos ciliaris alive, but not very active. "All you have to do," I said, "is to go home and freely breathe the fumes of burning sulphur. Thus you will kill these parasites and cure your cough, in my opinion. The sulphur will be pleasant and soothing." He did so and was cured shortly. Seeing me afterwards he expressed his surprised delight. I enjoyed it also for I thought it was the way to treat a disease by removing its causes by medicines, and then nature cures. This is like surgery, in some cases, which is so fascinating. Surgery removes causes and nature cures.

Case II.—A man lay sick in bed with what seemed to be pneumonia. Face red and countenance expressive of great suffering. Incessantly and noisily coughing and raising; body hot; pulse

normal; breathing normal when not coughing. From the pulse and respiration I doubted pneumonia. At once the asthmatos ciliaris in abundance and lively motion was found in the sputum. I told his wife to get some sulphur and burn it in the room. In a peevish, childish voice the man who weighed over two hundred, said, "Oh! I can't bear it, don't do it, I burned some sulphur the other day at my work and it half killed me." Tears then flowed and his distress increased. But I had seen the infusorial parasites, and I knew he needed them destroyed to get instant relief, so I insisted, and the sulphur was burned in the chamber. It was not three minutes before he was relieved and smiling through his recent tears. The next day, I think it was, he was at work in his shop. The sulphur was burnt in small quantities, only a few pinches at a time.

CASE III.—I was called to see a child two years old, said to have lung fever. She was suffering very much like the case last mentioned. Down her upper lip ran considerable thin acrid watery mucus from both nares. Some of this I scraped off, and by aid of the clinical microscope at once found it swarming and alive with asthmatos ciliaris. I used an atomized saturated watery solution of the benzoate of soda. The case recovered sooner than I wished, for I was anxious to study the unusually lively forms. Thinking that this was the way to practise medicine, and innocently anxious that my medical brethren should know about it, I read a paper to them on this case, illustrated with lantern projectives. After I got through, a gentleman spoke, and as I was busy with caring for my lantern (I always do this so as to be sure it is in order for future use) I did not notice what he said until I caught the words, "Dr. Cutter knows nothing about his subject." I then recognized the voice as of a gentleman I had known to bulldoze another who had read what I thought was a very nice medical paper on the lines of pleuritic effusion, and at whom I was very indignant, because of his palpable injustice and want of professional courtesy to the reader. I made up my mind that if he ever talked to me in that style I would give him the treatment I thought he merited. To tell the truth I had forgotten all about this, and had counted only on a courteous, if not warm reception. In an instant it flashed on me what to do. So I called the gentleman to order, saying that I had come there in good faith, on the principle that if any medical man knows, or thinks he knows, anything new or valuable to relieve suffering and cure disease, he is bound to make it known to his brethren, and so long as he observed the rules of good breeding, he was entitled to a respectful hearing, and hence I would not be insulted by him or any one else. I stood before him and said, "Tell me if I lie," and that there were other observers than myself covering several years and thousands of cases. Had he told me this, I was intending to sue him for defamation of character, because he appeared to me to stand athwart means which would cure cases if used; and not to stretch out helping hands to sufferers, because of a false, not to say insulting, statement, seems to me worthy of fiends and unworthy of men whose business it is to mitigate, not prolong suffering. He took the ground that these forms were ciliated epithelia, and said he had a slide with some that he had taken that day. I was glad of this for it removed the question down to asthmatos ciliaris *versus* ciliated epithelia. He said: "Mr. President, I would show them, but I have no microscope." Said I: "Mr. President, I have a microscope, which is at the gentleman's service." Said he, addressing me: "Your microscope is not good for anything, and I can't use it." Said I, "Please let me try for you." I took my clinical microscope with a one tenth ($\frac{1}{10}$) inch objective, four systems, 180° angular aperture, made by the late Robert B. Tolles, of Boston, whose reputation as maker in Europe (as I found out for myself) is second to none, and found the forms the doctor alluded to. I then handed the microscope to him and he made believe that he looked, and said, "Mr. President, I can't see anything." I replied, "Mr. President, I can, and I can furnish microscopes but not brains." I could not help saying this, such was my indignation at the obstinacy to being convinced by a man who characterized the beautiful one-tenth inch objective by Tolles, as good for nothing, while it was one of the best ever made. It was a falsehood clean cut out of the whole cloth, specially designed to overwhelm me with ignominy, who was sincerely and honestly trying to convey information about the diagnosis and treatment of la grippe, that I was convinced, if adopted, would do honor to the profession and redound to good in many cases. (By the way, this is my object now, in relating this encounter, and also to show on what unworthy grounds the knowledge here conveyed has been rejected.)

After the meeting was over I went to the gentleman, and among other things asked him if he had ever seen any other cases besides the one he had spoken of as showing that the forms in question were merely epithelia. He said he had not. Now, I have no objection to any man's opinion about anything, and respect it, so long as he shows a desire to thoroughly investigate the truth. So I asked him if he would like to see more cases. He assented. "Would you come to see them at my office?" He replied, "Yes." So I went about twenty miles, found several cases. I notified the doctor that they would come to my office at a certain date. At the time set they came. He did not come. I went for him, and he said he could not come as he was busy. I said I was ready to do my part to the utmost, but should not trouble him any more. Now, I dislike this history and would not give it but that the profession has believed such a man as this rather than one who takes the pains to back up his statements by actual demonstrations. Nor care I so much for this, either. It is the helpless and unrelieved sick who are suffering and some are dying, because doctors who know absolutely nothing but what is told them, believe in ciliated epithelia rather than in the asthmatos ciliaris. So long as physicians expect to cure and to mitigate suffering, and so long as they will not accept what I think is the truth, which has cured and has relieved, just so long do I feel like raising a protest against unfair means used to help along a rationale which to me is untrue in the light of the facts that have come to my knowledge.

Once I sent a description and cuts to be published in Philadelphia by a dear medical friend in his justly famous book. Along with it I sent specimens in the nasal excretions of a patient. This gentleman had asked me to go over his whole work and make any corrections I chose—a great compliment. He wrote me, "I shall publish your account, but not your cuts. I took them and your specimens to three eminent microscopists. They all disagreed. But one of them taking an infusion of hay showed me some forms exactly like those in your cuts." I wrote back "if this is a specimen of your critics I want to know his name. By your act you have said that I mixed with my specimens infusions of hay." He would not give me the name. I then wrote him that I

would kindly like him to show to this gentleman the enclosed list of eighteen individuals who had seen me take nasal excretions from grippe sufferers without any admixture of hay or anything else, and demonstrate under the microscope the forms described and sent to him. In that list were my medical teachers, Professors O. W. Holmes, and H. I. Bowditch. I added further that the people on this list were not to testify to my views, but to the fact that my observations were confined to nasal excretions. Not long after Dr. J. Leidy, another of my teachers, published in the *American Journal of Medical Sciences*, Philadelphia, January, 1880, a paper taking the ground that these forms were deformed ciliate epithelia, and referring to me. I have thus a right to refer to him. I wrote him thanking him for his criticism and that I did not expect he would agree with me, not being a practitioner, and hence not having the opportunities for observation and study that a practitioner had as a matter of clinical medicine. He politely replied, and closed his communication with these words, "I shall always believe you have good reasons for what you write." I regret that Dr. Leidy, much as I honor him, did not put into the morphologies of clinical medicine the work he did in natural history. The world would have been better off.

It is idle to expect uniformity of opinion on all subjects among all men, especially doctors. Things differ. Lawyers differ. It is impossible to exhaust any one subject. In October, 1889, I was in London. By no agency of my own I was in a company with the Lord Mayor, 1889-90. I congratulated him on the fact that the subject of *pavements* had ben settled in London. "Oh no," said he, to my chagrin, "that is not so." Now pavements have been in use in London since before the Christian era. They have not only been in hand, but *under foot* all this time. They were open to the eyes and feet of all the people, and *yet* it is not settled what the best pavement is! How can we look for an agreement amongst doctors on the A. ciliaris as a cause of grippe when people cannot agree as to things they can see and feel, and when one in a thousand only will use a microscope and study for themselves when in active practice, call it a toy, and go to the drug store if they can't get on without it, but will take the word of those whose observation is very limited in time and number? Now those who sustain the views here given have as good microscopes as can be made, and know how to use them. If any one doubts this I can satisfy by irrefragable proof. What is written here in favor of the A. ciliaris is based on at least twenty-five years of observation, by several observers who have been trained in many fields of microscopy and who, if pressed, can show that they have taken broad views and applied the facilities offered by the best instruments of precision to test their positions, and have backed them by clinical results of the most satisfactory kind, of which a few instances are given above. The experts who have called these forms deformed ciliated epithelia did not practice general medicine, and have not seen the clinical results. We don't deny that ciliated epithelia are found deformed in the excretions of the air passages. They are found in large numbers sometimes, but the reasons why I believe they are not all ciliated epithelia are as follows:

1. The asthmatos is not found in ordinary colds and bronchitis; ciliated epithelia are, but never have I seen them in active motion. They are always still when separated from the body, according to my own observations. Not often do we find them deformed in ordinary colds.

2. Profs. Holmes and Leidy, in their lectures to me, taught about ciliated epithelia, but they never said a word about them being deformed, about their separate existence with independent rocking motion, nor about their being the cause of great irritation in and on the mucous membranes of the air passages in grippe, nor being found very abundantly in the nares at the outset of the grippe, then leaving the nares and burrowing into the deep air passsages, the frontal sinuses, and the antra, so that after the disease has lasted a few days it is difficult to find their forms, as it was easy to find them at the beginning. Some might say they were not present, as they could not be found. Fishermen don't say there are no fish because they can't catch them. I have seen fish that I could not catch. Once I was so vexed that I made a gang of bare hooks, and dropping it where the trout were, I literally hooked them out of the water, sometimes tails first! My honored teachers were not singular in their want of teaching. Other professors omit as they did, but to be consistent Dr. Leidy should have taught me about deformed ciliate epithelia, so that when I encountered them I might have known what they were. Indeed, if dermatologists will not admit that the asthmatos C. exist, but that they are merely deformed ciliated epithelia, they will be recreant to the position if, after this, they fail to tell what they know about them in disease and in biology.

3. My honored instructors never told me that deformed ciliated epithelia *are found on the mucous membrane of the conjunctivæ of the eyes.* The asthmatos ciliaris has been found there during grippe, and, of course, if they are epithelia they should be described by the systemic teachers of histology. If not described, these teachers fail of their duty, and lose an opportunity to descant on the wonderful properties of separated ciliated epithelia wandering from the nares through the lachrymal ducts into the eyes.

4. Nor did they teach the reproduction of deformed ciliated epithelia by budding and by cleavage; by gubernaculous method, or by parturition from within.

5. They did not teach that sulphur fumes, menthol, camphor, atomized benzoate of soda, quinine, salicine, etc., would destroy the rocking motions of ciliated epithelia and cure the grippe, clinical matters of great importance, specially as so many deaths are reported from grippe at the present time.

6. Now, when Dr. Leidy says that these forms exist in grippe, but that they are merely ciliated deformed epithelia, he implies that they are the result, or that deformed ciliated epithelia can cause la grippe and make it contagious; that they can be found in the eyes; that they have three or more modes of reproduction; that their cilia are not linear, but arranged like the bristles on the end of a dining-table crumb-brush; that they have the power of independent, automatic locomotion, etc. In other words, in the face of the fact that la grippe exists Dr. Leidy insisted that I must believe this is caused by a deformed histological element lining the air passages. If so, why are not these doctrines as to epithelia taught in the schools? But this is not my business here.

7. *Q.* How much attention have you paid to this?

A. I have made a careful study since 1876 of the morphology of hydrant water of over thirty cities and towns, and of the Netherland canal waters, hence I cannot subscribe to the doctrines that the forms found in influenza do not indicate an animal parasite, a flagellate infusorium.

8. *Q.* Can you tell where is the natural habitat of these so called ciliate epithelia?

A. (*a*) If the Philadelphia savant, whose name I could not obtain, is correct, they are found in infusions of hay. If this is so, it is a new fact in natural history.

(*b*) In the fluid that laves the mantles of a living soft-shelled salt-water clam I have found ciliated epithelia attached and free, and some of them resembled the asthmatos ciliaris.

(*c*) In a canal in Holland, half-way between Leyden and Haarlem, I found, 1890, a form which I feel convinced was the asthmatos ciliaris in its natural habitat. If it was deformed ciliate epithelia I have the great honor of being the first discoverer of human ciliated epithelia in a Netherland canal.

Remarks.—It may be I am mistaken as to some of the free forms in (*b*) the clam juice not being epithelia. Until lately I have thought they were ciliated epithelia all of them, but I now think that some of them are a species of flagellate infusoria from marsh water. At any rate I give this for what it is worth, and to show that I have tried to study all the topographical aspects of this subject before writing about it.

9. But the main reason why I think these forms are animal parasites is from their clinical history, oral, nasal and ocular. Patients often suffer severely and their excretions sometimes teem with these forms, mechanically irritating the air passages and eyes. A remedy is given, the irritation is lessened or ceases, relief is afforded in a few hours, and these forms are found still in death in the excretion above-named. In clinical medicine we are taught *it is not live tissues that irritate.* If so, we ought to have the grippe all the time. But *dead* tissues or organs, as teeth or connective fibrous tissues, etc., do become sources of irritation because they are dead or partly dead. So if these dead forms in question are deformed ephithelia they cease to irritate, contrary to the natural rule, and thus we have the doctrine for the first time that *a dead tissue is not a source of irritation*, which is hard to believe. I think rather that the common-sense view, used in my clinical experience, is "kill the animals and you cure the disease," not kill the epithelia and you cure the disease.

10 *Q.* Can you give any evidence from your own case?

A. I can. I have often had the grippe myself and been very glad of it, because I could study these forms from my own person with never-ending delight. This has been when I have had it lightly, which is the usual habit with me. But when I would have it severely my eyes would ache from their use in microscopic observation, a thing they rarely do when I am well. I have noticed that when I have been away from home and unusually hard worked I take the grippe hard. For example I showed the morpholo gies of the blood and sputum to a Chicago Medical Society in 1879. I was delayed on the way, so that I went to the lecture at once from the train. The next day I was speechless from a severe grippe cold which did not affect the head but the larynx. There were plenty of forms of asthmatos present, and it was a pleasure to show them to medical gentlemen in Chicago. So when in January, 1890, I was en route for Richmond to read a medical paper, I was waylaid at Washington by the grippe, with a plenty of the forms; I had to disappoint my audience. One of the nicest cases I ever saw was when I attended a woman in confinement, and her husband was obliged to sleep in a cold room, which he was not used to. He laid his cold to the cold room, but I showed him the asthmatos C. and cured him readily with sulphur.

11. *Q.* Do you find these abnormal forms in bronchitic, asthmatic, consumptive or hay fever excretions?

A. No. Though I have studied the morphology of bronchitic, asthmatic and consumptive sputum for many years, making a daily business of it week by week and month by month. I have not seen these forms unless the grippe was about.

12. *Q. Is it a cause of hay fever?*

A. No. Hay fever is a form of asthma. Asthma is one result of gravel of the lungs. I once studied the sputum of about one hundred hay fever cases, but there were no asthmatos in them; nor deformed ciliated epithelia either. There are sharp, irritating, double-pointed crystals enough in asthmatic sputum to account for the irritation and spasmodic breathing of asthma without the asthmatos. Still there is no reason why there should not be, that I know of.

RESULTS.

1. What has been refused by the profession has been taken up by the laity.

As I write, there comes under my eye an advertisement in a Boston daily of a medicine for la grippe. Beginning at the top are cuts of three specimens of A. Ciliaris, and underneath them the legend, "Kill the animals and you cure the cold."

Remark.—This is true in my experience.

Next the medicine is said "to cure in ten hours or money refunded."

Remark.—Medicines do cure in this time in some of the cases, whether this one does or not.

"Only known specific for la grippe."

Remark.—This is not so. There are several cures.

"Prevents la grippe and colds, if taken every day. The discovery of Dr. J. H. Salisbury, who discovered the parasites in la grippe first. Four drops every two hours."

Remarks.—If this is the menthol cough drop of Dr. Salisbury, the formula of which has been published in the *Therapeutical Journal* years ago, and which the profession have not seen fit to use, I am heartily glad, for it is a very useful remedy, and if there are to be popular medicines (there is no way to prevent it), it is a comfort to know they are genuine preparations, and do what is reasonably claimed for them. When the Gospel was rejected by the Jews it was taken to the Gentiles. It would have been better if the Jews accepted the Gospel, and then gave it to the Gentiles. So in this case (supposing the preparation to be the menthol cough drop above). I am somewhat mortified that a good thing should have been left out by those who have real need of it in the treatment of la grippe.

2. *Another Result.*—Within a short time an aunt of mine, who lived over 200 miles away, died of the grippe. Had the profession received the doctrine of its parasitic nature when it was given out years ago, and gone for it in the light, the remedies recommended would have been adopted, and I don't know but that the life of this, my aunt, would have been saved at the outset, as in the cases given above. I did not know of her illness until just before she died, and too late. I have no doubt many deaths may be chargeable to the non-use of means which destroy the parasites. I saw many of my remaining relatives at the house of the deceased, and uttered the above sentiments. "Oh," said one, "you are fifty years ahead of the times." I told them it was high time the times should move faster than that. This is one reason of my personal interest in this

writing, that deaths are occurring which ought not to occur, even in the profession which may be said literally "to dispense wonders and perish." Their blood is not on my skirts. I believe that physicians exist to cure disease by removing causes, (repetition designed) or so aiding nature that she cures herself—that when they cannot cure they can mitigate—but there is too much of stopping pains and symptoms while not removing causes at the present day. During war when the pickets discharge their guns at the approaching enemy, it is not the custom to chloroform or opiumize the pickets to stop their firing. It is their business to fire at the enemy. Remove the enemy and the picket firing stops. So in the case of la grippe, the cough, sneezing, discharges, pains, fever, malaise, prostration, etc., are the results of the asthmatos, and are the pickets firing at the enemy. The asthmatos is the enemy, and the irritation and inflammation subside on its withdrawal. The future of medical practice, I think, is to be the removal of causes of disease; sustaining nature's powers; oiling the machines with suitable medicines, and then nature cures sometimes with wonderful rapidity. There are, of course, exceptions in the case of wounds, infectious and contagious, and where the causes cease at the moment of inspection.

3. Another result is to remind me of Abraham Lincoln's doctrine, "you can fool all the people some time, some of the people all of the time, but you cannot fool all of the people all of the time." Truth will not always go void. Some may say these are hard words to write. But is it not time to speak out, when all over the globe this epidemic rages, carrying off high and low, rich and poor, old and young, and the true treatment left to the laity, simply for want of an open ear to the truth—because indefinite, invisible, intangible, imponderable things are said to be the causes when it is visible, and have been photographed by the highest powers of the microscope?

Is it not time to speak out when physicians of high repute regard the microscope as a toy, as an end and not a means to an end to reach the diagnosis of disease?

Only yesterday a microscope maker said he went to reputable physicians and asked them if they used the microscope. None had one. One said when he wanted to use a microscope he went to the druggist for it. Said the maker: "Will you kindly let me know where?" He went to the place and found a mean, inferior instrument of very little value. How can such doctors as these take in the cause of the grippe?

An eminent physician was buried to-day. He had a microscope but it was a very poor one. And yet the owner, when alive, could have started by a few words the whole profession of this country to the adoption of this theory of the animal cause of the grippe. Had his microscope been a good one he probably would have done so, as he had the asthmatos ciliaris demonstrated to him by the writer, not only under the microscope, but also on the screen with a lantern. And yet to day was he laid away to rest with his mouth forever sealed as to what had been shown to him. His poor means of observation are preferred as an authority to those which have been acknowledged to be equal to any. Has it come to this, that nice microscopic work is of no account in such a vital matter? I have no desire to underrate the reputation or character of any medical men. I give them their due credit for their merit. But when it comes to standing as firm bulwarks against the onward march of progress—progress on which their own and other lives may depend—if they persist in standing in the way and get run over, their blood will be on their own heads. In such momentous matters individuals are nothing (myself included). Facts are everything, and what are wanted. The greatest individual soon dies, and the world goes on just the same. Let us now all be true to our responsibilities, and do our part well while we have the opportunity.

Q. What do you say as to the late discovery of the cause of grippe in Berlin? and Dr. Koch's finding it in the blood?

A. I hope it will prove to be all it claims. The science of bacteriology is one that ignores the fully developed forms of vegetable life. It stops with the acorns and ignores the oaks. To explain everything on the ground of bacteriology is as reasonable as to give an account of the people of Germany and treat only of the babies, leaving out the grown people. Now that Dr. Koch has found something in the blood, I hope he will find more, and among the forms of life that have long been known and recognized as causes of disease. Again, so long as the clinical results of a parasiticide treatment of grippe have proved so satisfactory, I see no occasion to fall back on the bacteria for which there is no cure proved and give up the animal parasites which are so abundantly found in grippe. There is no reason to be ashamed of the American work done, and give Germany all the credit.

Q. In order to give an idea of the scope of the work of the microscope which has been done in the study of the secretions of the air passages, will you state the range of your efforts?

A. I can best do this by quoting from the clinical morphologies published in 1888. It is made up of things I have found in the sputum, and is called *partial*, as it does not pretend to include the observations of others.

From Clinical Morphologies. Partial List:

MORPHOLOGY OF SPUTUM.

As the morphology may include that of the air, of course this is incomplete.

Aerial forms of yeasts.
Albuminoid matters.
Alcoholic and lactic acid yeasts.
Algæ, names unknown.
Amorphous, organic and inorganic matters, including dust and dirt inhaled from the atmosphere.
Amyloid bodies.
Anabaina irregularis.
Any of the microscopic fauna and flora found in drinking waters.
Asthmatos ciliaris.
Bacilli.
Bacteria.
Blood-corpuscles, white and red.
Butter.
Calculi made up of:
- Cholesterin.
- Cystin.
- Oxalate of lime.
- Phosphate of lime.
- Triple phosphates.
- Uric acid.

These may all come under the appellation of "gravel of the lungs."
Carbon, from smoke inhaled.
Carbonized tissue from lungs.
Cells and fibers of lung tissue.

Cholesterin.
Clots of blood.
Colloid.
Connective animal tissues.
Contents of giant cells escaped outside of walls.
Cotton fiber.
Cream of tartar crystals.
Crystals with two or more terminals.
Cystin.
Dust and dirt.
Elastic lung fibers.
Elements of animal food eaten, cooked and uncooked.
Elements of vegetable food eaten, cooked and uncooked.
Epithelia, ciliate, deformed, non-ciliate, pavement, columnar.
Fat.
Feathers.
Foreign substances inhaled.
Fucidium.
Fusiform crystals.
Gemiasma alba.
Gemiasma rubra.
Gemiasma verdans.
Granular tubercular masses.
Granular tuberculous matter, so-called, sometimes fetid in odor.
Gravel, crystalline.
Gravel, granular.
Gravel, massive.
Hairs of plants and animals.
Inelastic lung fibers.
Ipecac dust.
Lactic acid alcoholic yeast.
Lactic acid mother of vinegar.
Lactic acid vinegar yeast.
Leptothrix buccalis spores and filaments.
Leptothrix buccalis heavily loading and enormously distending lingual papillæ with spores and filaments.
Leptothrix buccalis in epithelia.
Linen fiber.
Lumina of blood-vessels.
Micrococcus spores.
Microsporon furfur.
Mucor malignans (diphtheria).
Mucous cells swarming with moving spores, probably of the leptothrix buccalis; not found in the mouths of healthy infants.
Mucous corpuscles.
Mucous corpuscles, caudate and deformed.
Mucous corpuscles distended with albuminoids.
Mucous corpuscles distended with crystalline and other bodies.
Mucous corpuscles distended with cystin or giant cells.
Mucous corpuscles distended with leptothrix.
Mucous corpuscles distended with melanotic matters.
Mucous corpuscles distended with oxalate of lime.
Mucous corpuscles distended with triple phosphates.
Mucous corpuscles distended with uric acid and urates.
Mucous corpuscles, normal.
Mucous filaments and fibers.
Mucous; normal and ropy and viscid (colloid).
Muscular fibers of food.
Mycelial filaments of acetic acid vinegar, and lactic acid vinegar yeasts.
Mycelial filaments of fully developed yeasts and other fungi.
Mycoderma aceti, spores and filaments.
Other crystals whose names have not been made out.
Oxalate of lime.
Papillæ of tongue, usually infiltrated with spores of leptothrix.
Partially carbonized vegetable tissues from smoke.
Phosphate of lime.
Pigment matters, emerald, blue, black, bronze, yellow.
Pitted ducts, etc.
Portions of feathers of animals and insects.
Pus-corpuscles.
Sarcina.
Silk fiber.
Skeins of mycelial filaments.
Special pollens.
Spirilina splendens (asthma), Salisbury, 1865.
Spirillum.
Spores of artemisia absinthium.
Starch, corn.
Starch, potato.
Starch, wheat.
Swarms of spores.
The whole lumen of a vein just before ending in the capillary.
Tough, ropy mucus.
Triple phosphates.
Tubercles.
Uric acid and urates.
Uric acid crystals.
Vegetable tissues.
Vegetation found in croupal membranes (Cutter, 1879).
Vibriones.
Vinegar yeast.
Vinegar yeast and lactic vinegar yeast.
Woody fibers.
Yeast plants, alcoholic and lactic acid.

TREATMENT OF CASES.

1. *Mild.*
2. *Severe.*
3. *Fatal.*

1. *Mild.*—In many cases the disease will get well of itself. I have repeatedly had it, and suffered so little inconvenience, that I would let it alone and study the asthmatos as they lasted. Nature will eliminate them in mild cases without help. If not, a few grains of sulphate of quinine taken three or four times a day will break it up. It will much aid if the regular eating, drinking, and exercises of life are kept up moderately. Best to take a rest altogether, and give nature full force to eliminate the disease. Indeed, I think the asthmatos cannot lodge long in perfectly healthy persons, but such are rare in civilized life.

Menthol Cough Drops (Dr. Salisbury).—Formula published years ago. At my recommendation Kellog & Hitchcock Co., No. 4 Park Place, N. Y., supplied them to the public on the ground that there was need of a popular medicine of this kind. Dose, 4 drops once in 15 minutes As a general rule it will break up mild grippe effectually in a short time. As only a few minims are taken at a time they are truly called "drops."

Besides, they furnish the menthol powder, which is menthol and sugar of milk, and menthol ointment called "ice" for the same purpose, and also as domestic remedies to be kept on hand for common catarrhal ailments, and cuts, wounds, bunions, skin diseases, etc. (I once cured with the "ice" an obstinate

chronic eczema of the leg of a man who had tried many things, said uncomplimentary things of physicians, and would hardly let me prescribe for him.)

Putting menthol powder in a bottle or inhaler, and breathing it like smelling salts, is a nice way to treat mild grippe. I have found my own inhaler a good one, and others in the market. The main thing is to have the menthol *pure*. It is often adulterated. But as the Japanese government has interested itself in the matter there is less excuse for using sophistications.

2. *Severe*, uncomplicated cases of la grippe may be treated in addition to the above, with

(A) *The Fumes of Burning Sulphur.*—This of itself is a test of the kind of cold you have to deal with. Generally the patient is asked to go into the kitchen or adjoining room, then have some one sprinkle a few pinches of sulphur from between the thumb and finger on the heated range or stove. Or if the patient cannot leave the sick room, put the sulphur on a heated iron plate, or a fire-shovel, held over a lighted lamp or gas jet. Or sprinkle sulphur on live coals placed on some proper support. At once the sulphur penetrates to the remotest part of the room, even if adjoining. The patient passively inhales with no effort on his part. Immediately, as a general rule, a sense of relief is felt in the air passages which is refreshing and delightful. Like Oliver Twist, he "wants more," and it is well to let him have all he wants. It is wonderful how patients will enjoy it. Once I found a family with three children, under six years of age, suffering from the grippe. I burned sulphur on the kitchen stove myself in pinches. Finding that they liked it I put on more till the air was charged so that I could not stay, but beat a hasty retreat, while the children remained stretching their necks over the stove and heartily laughing at me because I did not enjoy what they did! This proved a cure and diagnosis—for had they not had the grippe they could not have stood the sulphur test, and whenever I have had the grippe, I could stand almost any amount of sulphur fumigation. I have made this experiment so many times, and seen it made that I feel great confidence in recommending those who cannot, do not, or will not use a microscope *to test the kind of cold they are dealing with by the use of burning sulphur.*

ALL CASES OF COLDS ARE NOT GRIPPE.

Indeed, if I wanted any proof that the microscope was *not a toy*, I could bring forward no better instance than this one of its *use* to detect la grippe.

(B) *Nascent Chloride of Ammonium.*—"Nascent" means just born. When the vapors of ammonia and muriatic acid are brought together, instantly a cloud of snow like smoke is formed that will float in the air. This smoke or cloud I have examined and photographed under the microscope, and find it made up of beautiful feathery crystals of the ammonium chloride or sal ammoniac. Inhaled in la grippe its effects are soothing to a great degree, and it kills the parasite. The Germans have used the nascent chloride of ammonia for a long time in chronic respiratory affections, but I think I was the first to use it in these *acute* affections, and with great benefit.

To facilitate the use I brought out an inhaler, which some one else patented and made money from, I was told, though he did not interfere with me. I gave this invention, like several others, to the medical profession, freely away. It may be briefly said here that it consists of a reservoir (a common pickle jar will answer) with a wide mouth and a cork perforated with two holes or peripheral cuts, a hair-pin impaling a sponge and a glass or other tube, at least one-third of an inch in diameter, six inches long, bent at an angle of about 23°, one end of which tube protrudes slightly through the cork into the reservoir. In improvising this apparatus I have found that a common screw, two or three inches long, is a good thing to make holes in cork. Just screw it in for a slight hold. Now you pull it out. Some of the cork comes with it. Keep on doing so till your hole is made through the cork and of right size. For use put a tablespoonful of muriatic acid in the bottom of reservoir. Then, having moistened the sponge (impaled on the hair pin which is stuck in the cork) with water and squeeze it dry in a towel, moisten it with aqua ammonia. Insert the cork in bottle. The sponge should not touch the acid. Now blow air through tube by mouth. The current will mix the two vapors, and if the chemicals are good a heavy cloud of nascent chloride of ammonium will fill a room of moderate size, like a bath room, and the patient will passively inhale as in the case of sulphur fumes aforesaid, and this will be all that is required save to renew the ammonia oftener than the acid. I have called this

PASSIVE INHALATION,

and it is a very important mode of administration in cases of infants, children and people who are too sick and feeble to draw breath through an inhaler. There are such. But if the patient must or wishes to rely on one's self, the

ACTIVE INHALATION

can be had by drawing breath inwards through the tube (and with it goes the nascent chloride of ammonium) after the apparatus has got well going. Others use the free acid, as ammonia may be too strong and irritate unnecessarily the air passages. When there are no glass tubes, two radial sections cut on the opposite sides of the cork—which must be of large diameter—making, when the cork is inserted into the mouth of the reservoir, two triangular shaped holes. The hair pin, impaling a sponge, is arranged as above stated. When the apparatus is charged, an assistant can blow in at one hole and the nascent chloride will escape from the other hole.

Mr. Hutchens, of Fraser & Co., uses the simplest mode I have seen, *i. e.:* Take two cotton cloths half the size of a lady's handkerchief, moisten partially one with aqua ammonia and the other with the acid. Then, holding them together, simply wave them in the room, and renew chemicals, when exhausted, at will. The nascent chloride of ammonium treatment is efficacious, and deserves a fair trial on the part of those who desire, intelligently, to treat grippe. It should be added that this remedy is very soothing, clean tasted and tonic in all catarrhs and inflammations of the mucous membrane of the air passages, even those independent of grippe. I have seen bad cases of pneumonia recover under its use, that looked as if they would die. Indeed, I think they would have died had the nascent chloride of ammonium *not* been used. In infantile therapeutics it is a splendid addition. Take new born babes with bronchitis or pneumonia. They are the most difficult cases to treat, and many die for want of treatment. There is good reason to believe that the nascent chloride can be favorably used with safety and success. Indeed, I have seen babes before they could talk reach out their little hands and arms with a beseeching grunt or squeal,

and in pantomime language ask for the nascent chloride to be continued. These things add to its value as a remedy in grippe.

ATOMIZED REMEDIES.

Here we strike a rich field of modern therapeutics. None now doubt the penetration of atomized substances into the air passages. There is a large number of remedies to select from. I will only name a few.

Benzoate of Soda, and Salicylate of Soda.—These made into a saturated watery solution may be used at will. The relief afforded is striking and prompt. Those who are pleased with *carbolic acid* or the French phenic acid solution, can use them in the same way, if they are not over 10 per cent. solutions.

Benzoinol and Iodoform.—Benzoinol and glymol are petroleum products of remarkable soothing powers to the air passages. They will take up about 10 per cent. of iodoform and other substances. They make a very nice throat application by atomization or by direct contact.

Liquor Ferri Persulphatis and Glycerine, equal parts and diluted with water, one drachm to the ounce for atomization, or one pint for gargling, is a valuable remedy.

Menthol Cough Drops (as above) are efficacious by atomization perhaps more than by the mouth, as thus they come into direct contact with the parasites and air passages.

General Treatment.—Feed the patients well; don't give gruels, but beef. Drink hot water freely, so as to liquefy the blood and promote secretions. Ammonia sponge baths. Rest from all toil, worry or pleasure; best in bed. Stay till cured. When one rests in bed he gives nature a better chance to cure with or without medicines, which, after all, are but oils to the machine. The natural tendency of the system, unless in old age, is towards health. One great part of the doctors' business is to see that this tendency is not blocked nor barred out.

3. *Fatal.*—La grippe alone is not apt to be fatal, though often reported so, but it is doubtful that these cases in adults were uncomplicated with bronchitis, pneumonitis, rheumatism, Bright's disease and its kinship of fatty degeneration, pleuritis, or some other disease.

It is usually the case when a death occurs, more than one cause can be found on a post-mortem examination. On the other hand, it is easy to see how any of the above named diseases could be fatal if complicated with grippe, which allows of no rest in severe cases to the patient, unless checked by parasiticide. In those complications the patient has seemed to me to be like a tiger in a cage, and yet some one was poking him up all the time with a long pole—an operation not best calculated to allay the temper, smooth the feelings, nor calm the body doomed to such an environment. I put the fatal cases in this division to impress, if possible, the importance of rescuing them from this category by the treatment and removal of the, to me, physical cause of grippe, just as a physician, if called to a prisoner sick in a cell with bronchitis and continuously punched up by some human fiend with a long pole and at a safe distance (repetition designed here), would speedily dispense with the pole business as an indispensable part of his treatment, well knowing that nature could not have any force to work with and respond to his remedies as long as this treatment was kept up. In other words, the first prerequisite of his treatment of the would-be fatal cases of grippe is first of all to stop the physical irritation of the nerve centers, of the air passages and lungs, by stopping the motion of the asthmatos ciliaris and ridding them of their presence.

In my opinion, and from my own personal experience, the asthmatos C. causes irritant, persistent, harassing cough, as in the cases alluded to above. Suppose the man, for example, had had pneumonitis along with his fearfully troublesome cough, so irritating and weakening as to have unmanned him and made him cry like a child, could he have recovered under this excitation? Indeed, the great fatality of pneumonitis during an epidemic of the grippe, as now, is or may be due to this very complication with grippe. I repeat, this is mainly why I write, to entreat those who treat bronchitis, pneumonitis, pneumonia, or lung fever, that they recognize this complication when present, remove it by the means referred to, and then better results would follow. People die too easily with lung fever, and it is due, in my opinion, partly to the causes named here. Is it too much to ask that, in view of this great and rapid mortality, attention should be paid to this complication; that what is here written is not treated as a whim, a folly, and "being fifty years before your time;" that physicians should not pin their faith on those who use imperfect instruments and who will not thoroughly investigate the disease when asked to do so and when they have promised to do so; whose observations are confined to laboratories and not extended to clinical medicine; whose whole force is applied to undermining those who are honestly striving to remove the opprobrium of medicine which lies in lung fever being so fatal?

Is it necessary to present truth on a false basis ere it is believed, as in the case of the California big trees,[1] or the bichloride of gold cure of drunkenness[2]? But such principles are unworthy of the age. Never was there a time when immense and powerful magnifying glasses of truth were applied to history as now, and it will not do to falsify truth. Is it because you don't wish to give credit to the discoverer, especially after he has been sat down upon? Such conduct has redounded to the world's hurt. Take the present case, had this discovery been acknowledged, in my opinion, thousands of lives would have been saved that now are lost.

What encouragement is there to discoverers if they are to be persecuted because of their discoveries? It takes vim to make discoveries. But it takes vim away if, after a given thing has been done, it has made things worse for the discoverer. Unjust criticism and denial of rights to the detriment of all concerned are not good atmospheres to make discoveries in. How does this tally with the encouraging words given on public medical occasions to discoverers?

[1] I was told by one of the discoverers of the big trees that it was hard work to make people believe they existed. Repeatedly the surveyor's expedition which discovered them returned and told about the big trees. But they were laughed to scorn. Said he, "Finally, I got mad and said, 'boys, we have told them the truth and they won't believe it, let's tell them some lies and see if they will believe them.' The first lie we told they believed. It was, 'Come, we have found the lair of the she bear and cubs, let's hunt them on Sunday.' They went. When we got there I pointed to the trees and said, 'Here is the bear and there are the cubs.'"

[2] The husband of a patient cured by the Keeley method said there was no gold, but hypodermics of strychnine and atropia. It was said to-day in a public comment that this was no matter so long as there were cures.

Once a medical gentleman, now dead, sat down on me in some of my work. Some years after, he delivered an oration before a medical society, which I did not hear. When I read it afterwards I came across the words, "We always welcome with open hearts and hands any improvements in medicine." I wrote him that I had read, with great interest, his able address, and asked if he said what he meant and meant what he said. He kindly replied, "I did." Then I asked him if he meant so when he crushed out my contribution to medical knowledge, but I never received any reply to this.

Q. What has this to do with the treatment of fatal cases of grippe?

A. Everything. If people mean what they say, or say what they mean, then would they adopt the treatment for grippe in its complication, which is to remove first of all the grippe by any or all of the means indicated, and then to deal with the complications with a more reasonable prospect of success.

Besides, as this is an esoteric paper, it gives a clearer insight into the subject to tell what personal experience has come to one who has honestly and sincerely aimed to work for the advance of medical science to a higher plane of usefulness.

As to the treatment of la grippe on the bacterial theory, it has not yet come out. Its principle is kin to that laid down here, that killing the cause, bacteria, kills the disease, to wit: by removing that cause. So far as world wide prestige, imperial honors, public largess, and universal following are concerned, bacteriology has won greatest praise as to the cause of consumption. But so far as cure is concerned, bacteriology is not anywhere as good in consumption as American methods reported by me at Berlin, 1890, If bacteriology does no better in grippe, I think we are justified in entertaining and practising upon the views here entertained. Give credit to *all* discoverers, but forget not that Americans come under the designation of "all." Don't pass them by, and go away from home to adopt means of treatment which are far inferior to those of our own workers.

PREVENTIVE TREATMENT.

"An ounce of prevention is better than a pound of cure." Justly is prophylactic medicine popular.

Q. What is the best way to prevent grippe?

A. Keep the body in good health.

Remember it is work to live in health. Hence overdo in neither work, worry, passion, nor pleasure. Be regular in your habits. Take proper exercise, best in doing some good to others. Keep body clean, warm and well-fed. Work less than ten hours a day in your head. Live more in the heart and less in the head. If you have a good wife (she is a gift from God, and thank Him for her), devote your leisure to warming her heart and your home by the ten thousand nameless, apparently trivial, but important, ways known to real marital life. Make your family your club. Do good to others. As far as possible live in peace with all men.

Q. Can you suggest a diet list for prevention?

A. Yes, the following:

DIET LIST FOR THE HEALTH, ON THE SALISBURY PLAN.

To wit: Two mouthfuls of food from the animal kingdom to one mouthful of food from the vegetable kingdom. Food from the *mineral* kingdom not counted in the above division, and taken at will.

Foods from the Mineral Kingdom:

Air, should be fresh and pure.
Water, spring water preferred.
Hot water.
No ice.
No ice water.
Salt.

Food from the Vegetable Kingdom.—One mouthful to two of animal food:

Wheat, whole, cleaned, cracked, crushed and baked like oatmeal.
Entire wheat flour, Franklin Mills, Lockport, N. Y.
Wheatlet, Franklin Mills, Lockport, N. Y.
Carr's Graham Flour.
Arlington Wheat Meal, Arlington, Mass.
Whole wheat cleaned and steamed.
Health Food Company's Graham Flour.

Oats,		Dandelion,
Rye,	Tea,	Parsley.
Barley,	Coffee,	Okra,
Maize,	Chocolate,	Prunes,
Buckwheat,	Shells,	Radish,
Peas,	Pepper,	Cranberry,
Cabbage,	Mustard,	Turnip,
Tomatoes,	Horseradish,	Squash,
Celery,	Lemons,	Carrot,
Onions,	Oranges,	Fruits,
Spinach,	Limes,	Apples,
Lettuce,		Irish moss.

Animal Food.—Two-thirds in bulk. Two mouthfuls to one of vegetable food:

Porterhouse steak,	Mutton chop,
Sirloin steak,	Mutton roast,
Tenderloin steak,	Mutton steak (broiled),
Hamburg steak.	Chicken,
Roast beef,	Eggs,
Corned beef,	Turkey,
Beef tongue,	Geese,
Ox tail,	Game,
Tripe,	Pigeon,
Milk (best warm from the animal.)	Squab,
	Fish, all kinds,
Cream,	*Oysters*,
Butter,	*Scollops*,
Cheese,	Shrimps,
Smoked beef,	Clams,
Dried beef,	Eels,
Calves feet and heads,	Craw fish,
Pigs feet and heads,	*Lobster*,
Ham,	Turtle.
Sausages,	

Food includes air and drink. It should be pure, seasonable, healthy, properly cooked, regularly taken, and liberally eaten. Besides the æsthetic view of using food there are the chemical—kinetic—physiological, pathological, and therapeutical. Common sense estimates include all these.

This diet list is specially adapted for normal lactation, or a plentiful and healthful supply of milk to suckling infants.

The patient is not expected to eat every thing on the list but to make selection at will, but articles in *italics* are preferable.

POSTLUDE.

The death of Sir Morell Mackenzie is just wired from London, as caused by bronchitis after grippe. This illustrates vividly the fatal combination referred to here, and shows the truth of the remark that we

are losing thereby eminent persons of highest character and reputation, even in the medical profession. An invited guest at his dinner-table, Sir M. introduced me to persons of the highest influence in London. His words of good cheer and encouragement will long endure in my memory. Thus he brought me into society. Like the great-hearted Dr. Sims, he recognized co-workers in a very handsome way, and held out a helping hand to others.

His death is an additional reason for this paper, as I can't but feel that this truly great physician might have been spared to further bless the world, and the ideas here laid down been adopted, *i. e.*, had the above means been used in his case for grippe, then the bronchitis might not have proved fatal. Or, if they had been employed I should feel that we had had the benefit of all that is known to directly apply to his case. Perhaps they were used. Thank God, that Sir M. Mackenzie lived such a useful and brilliant life, and did so much good to others!

THE ARISTON, Broadway & 55th St., February, 1892.

Society Notes.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

January Meeting.

The President, DR. WM. E. MASELY, in the chair.

DR. T. A. ASHBY exhibited a specimen of a dermoid cyst which he had recently removed from a single woman, twenty-five years of age.

The cyst grew from the left ovary, and had been diagnosed as ovarian cyst. It measured four and a half by five and a half inches in its diameter. Its removal was accomplished without trouble, and the patient made a prompt recovery.

The interest in the case centered in the character of the cyst and its contents. It was lined internally with dermal tissue, and at one point the layer covered a small piece of bone. At this point a long twist of hair grew from the skin and measured thirty inches in length. The cyst contained a large collection of sebaceous and oily matter, and large strands of hair disconnected from the tumor and matted together in the cyst.

The specimen is an uncommon variety of dermoid cyst. A similar case has been reported by Dr. Mundi, of New York. Dr. Ashby referred briefly to the origin of dermoid tumors.

They are, no doubt, due to an eccentric and irregular development of the epiblastic layer of the tissues of the fœtus in embryonic life. The cysts are almost uniformly found in organs and tissues which owe their origin to the layer of the epiblast, and this circumstance goes to explain the peculiar features which they present. The ovary is a very common location for them, and this fact would tend to prove that the organs of generation originates in the epiblast.

DR. WILLIAM BRINTON read a paper on "From Pregnancy, Complicated by Placenta Previa Centralis."

I was summoned at 3.30 o'clock in the morning of September 1, 1891, to see Mrs. B. T. M. Her second confinement, from her reckoning, would take place October 15.

I did not see her until sent for, as stated, on the morning of September 1. Upon arriving at her home I found my patient in bed with the history of being awakened sometime before I was sent for, by having a few sharp pains which were followed by a profuse hemorrhage.

Upon examining Mrs. M., I found the vagina filled with large clots of blood, the os slightly dilated and very soft, and a placenta presenting. At this time, her pains having ceased, I cleaned out the clots from the vagina, and found the bleeding had stopped.

I determined to return home, which I did, leaving orders for my patient to remain quiet, and to send for me at once if the pains or bleeding returned.

I was informed, before leaving the house, that a week previous, the patient had had a severe hemorrhage, and knowing I was out of the city, Dr. W. J. Jones, who lives in the immediate vicinity, was sent for.

He saw her twice, and under the treatment and advice which he gave her the bleeding ceased.

At 6.30, or about three hours from the time I left the house, I was again sent for. I immediately responded, and I was soon joined, at my request, by my colleague, Dr. Crouch, and by Dr. J. H. Robinson.

A vaginal examination made at this time, found the vagina filled with blood which was continuing to flow. The os was more dilated and dilatable than it was at my previous examination, and a more complete examination found the placenta presenting, which was of the most complete central variety that I have ever seen. In running my finger around, I found the placenta was completely attached to the mucous membrane of the lower segment of the uterus, with the exception of a small space on the left side, from which the bleeding came, and a tear had taken place during the recent contractions which had severed a small portion of the placenta from the attachments. My opinion being verified by the gentlemen present, and as the hemorrhage and pains were continuing, we determined to deliver at once. Chloroform was administered, and introducing my hand I found the cervix not well dilated, and had some trouble in introducing my hand. I tore rapidly through the placenta at the left side, and found a child presenting vertex. I ruptured the bag of water, and delivered it living by podalic version. In my efforts to do this, I was made conscious for the first time that the uterus contained a second child; so tying the cord of the first child and handing it to Dr. Crouch, who was ably assisting me, I introduced my hand for the second time and found the second child presenting shoulder, "dorso anterior position," the head being to the mother's left. I turned and immediately delivered a second living child, after which I introduced my hand into the uterus and removed the placenta, which presented a very ragged appearance from my efforts made in passing it at its attachment to the uterus on the left side. After removing the placenta, the vagina and uterus were thoroughly washed out with warm water, during which I discovered that the cervix was lacerated on both sides, due, no doubt, to my efforts to deliver the children through an imperfectly dilated cervix. Although a large amount of blood was lost during the operative procedure, the woman rallied well from the chloroform, the uterus contracted well, and our patient, within a few hours, presented no special traces of the severe ordeal which she had passed through. The children, both males, presented the appearance of having advanced to the seven-and-a-half months' utero gestation, and for two or three

hours after birth did well; but later on in the day their extremities became cold, lips blue, heart weak, and they died some seven hours after their birth.

The mother did fairly well for about one week, although the pulse and temperature were somewhat above normal, the pulse averaging between 90 and 100, the temperature being about 100°. She sat up on the eleventh day, and on the following day I was sent for, and found her with a high temperature and rapid pulse, with some indications of "phlegmasia alba dolens," and for three weeks she was under my constant care, with evidence of well-marked septic complications, and as soon as the tendency for the phlebitis disappeared in one leg it appeared in the other.

I am satisfied the late septic complications occurred from the lacerated cervix, which healed up kindly on the right side, but not so on the left, which healed slowly by granulations.

Upon my recall to the case on the 11th day, I took charge of the vaginal injections myself. Previous to this time I had entrusted this to the nurse, much to my regret, for upon my first examination I was satisfied they had not been thoroughly given; so every day for several days I introduced a speculum and with an ordinary piston syringe, I washed out the uterus, cervix and the vagina, with bi-chloride or carbolic acid sol., and dusted the seat of laceration with either boracic acid or iodoform. Internally was given quinine, phenacetine, large doses of iron, and good food.

The leg was bandaged from time to time with an ordinary roller bandage. Greatly to my relief my patient finally recovered, and seven weeks after her confinement, returned to her home in Washington.

My object in reporting this case is to impress on the minds of physicians the importance of not temporizing when they have to do with a case of placenta previa.

There is no safety for the mother as long as she remains undelivered. I am satisfied no one can lay down dogmatic rules in every individual case, but my own personal experience has taught me that in performing podalic version, and delivering either rapidly or slowly, as the case may indicate, you are working for the best interest of the mother and child in the vast majority of cases.

DR. WM. P. CHUNN: I have seen only cases of placenta previa. One I saw with Dr. Neal. The patient had been tamponed with cotton. He took out the cotton, inserted his left hand, and delivered the child by podalic version. Both mother and child did well. I had one patient of my own. It was a marginal implantation, and I thought I could use the forceps better than turn, and I did so. I had some difficulty in getting the forceps on, and failed at first, but the attending physician forced the head firmly down by external pressure, the forceps were put on and the child delivered. I think I might have done better by podalic version.

DR. BRINTON: There is no absolute law for the treatment of placenta previa. In my first case the patient was lost by delay. In another case the woman had bled considerably, but about the time I was called the head came down and the bleeding stopped. Forceps were put on and the child delivered. I am now satisfied that the first patient could have been saved by prompt action.

In the ten cases of placenta previa which I have seen in practice, only two of the children have been saved. The mothers have all recovered, with the one exception as specified above.

Dr. T. A. ASHBY: I think Dr. Brinton did the proper thing in this case. My experience with these cases has been limited, having seen but two. In one the child was dead born. The mother recovered. The placenta was attached over the entire cervix and had to be torn away before the child could be delivered.

In the second case, I removed a dead fœtus of five or six months with placenta previa. She had been bleeding for some weeks. She recovered and subsequently gave birth to a living child. More recently I delivered her of another dead fœtus.

With reference to the ceptic trouble which the doctor's patient had suffered from, I am satisfied that lacerated cervix is a prolific cause of pelvis troubles, and I frequently find laceration of the cervix and involvement of the tubes associated.

The treatment that the doctor suggested of going into the uterus and washing it out thoroughly, is very good. My own method is somewhat different. I put in a speculum, fill up the vagina with a bichloride solution, and then with some cotton on an application, remove all the débris from the cavity of the uterus. I have treated eight cases in this way in the last year, and in each case got a good result.

I have seen but one case of pure septicæmia that came on four weeks after confinement. There were no local lesions and there was nothing in the uterus to be removed. The symptoms came on the twenty-first day after confinement, and she died in about a week.

WILLIAM S. GORDON, M.D.,
Secretary.
712 N. HOWARD ST.

REMOVAL OF CARCINOMATOUS BREAST.—The patient was placed upon the operating table with the chest slightly elevated. The integument of the axilla and of that portion of the mammary gland within the field of operation was first shaved and washed with soap and warm water, afterwards with ether, and lastly with a 1 to 2,000 bichloride solution. Sublimate towels were laid over the chest leaving the parts to be removed only in sight. The operator then carefully outlined the tumor, as he said it was essential that the incision should take in from one to two inches of healthy tissue outside the limit of disease. The skin and subcutaneous tissues were divided down to the muscles, each vessel being tied with catgut sutures as soon as it was cut. All oozing of blood was arrested by pressing sublimate towels into the wound as the operation was proceeded with. After careful dissection the tumor was then lifted out *en masse* and removed.

The dissection, after removal of the neoplasm, was continued into the axillary region. An incision was made from that end of the elliptical wound in the breast nearest the axilla, parallel with and below the border of the pectoralis major muscle, and extending as far as the arm. The integument below this incision was dissected up from the underlying areolar tissue to the posterior fold of the axilla and the diseased glands removed. A good-sized rubber drainage tube was inserted into the wound, and after it had been closed by sutures the cavity was flushed with sublimate solution of the strength of 1 to 3,000. The wound was then dusted with iodoform powder and the usual dressing applied. These dressings will be permitted to remain in situ for a period of ten days, when they will be removed and may then be left off permanently.—Wyeth, *Int. Jour. Surgery.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE TIMES AND REGISTER,
FORMED BY UNITING THE
PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,
PUBLISHED UNDER THE AUSPICES OF THE
AMERICAN MEDICAL PRESS ASSOCIATION.

Published by the MEDICAL PRESS Co., Limited.

Address all communications to 1725 Arch Street, Philadelphia.

New York and Philadelphia, February 27, 1892.

UNDESIRABLE IMMIGRANTS.

OUR readers have been fully informed of the arrival in New York of a ship load of immigrants infected with typhus fever. Through the unpardonable negligence of the port officials, the passengers were allowed to land, and by the time the infection was discovered, they had scattered over the country. Nearly all the cases that developed typhus are in the city of New York. While a number of the immigrants came to Philadelphia, none of them has thus far developed the disease. The period for the appearance of the typhus from direct infection has now passed, and the only danger remaining is that the germs of the disease may exist in the clothing or other effects of the immigrants, and become active at some future time. Still, as these people are under the watchful care of the health authorities, it is quite unlikely that we will see any outbreak of typhus in Philadelphia during the present year.

This is not the first time that typhus has been brought to America. Wilson thinks that the epidemics prevailing in this country during the early part of the century were probably cerebro spinal fever, though known as typhus or spotted fever. In 1816, typhus broke out in the Boston almshouse, and spread to that city. In 1820, it appeared among the Blockley paupers, but did not spread beyond its precincts. In 1818, 1825 and 1827, it appeared in the Bellevue prison and in the slums of New York City. A sixth outbreak occurred among railroad laborers in Westchester county, and in 1836, it appeared in the purlieus of Philadelphia, and extended widely over this city. While no direct connection was traced in these cases to an importation from Europe, there is no reason to doubt that this was the case. Besides these instances, typhus has appeared in the form of localized outbreaks directly traceable to importations, in the ports of New York, Philadelphia, Boston, Baltimore, etc. Flint described such a restricted epidemic occurring in Buffalo, in 1850–2; Loomis that of New York, in 1861–5; and DaCosta that of Philadelphia, in 1864. In 1880, a few cases were seen in the wards at Blockley. During the rebellion, 1,723 cases, with 572 deaths, were reported as typhus to the Surgeon General of the Army; but Clymer stated as a result of his investigation, that these were not instances of true typhus.

Lebert[1] states that "Typhus has followed the Irish immigrant everywhere, and with him and through his means has become naturalized, not merely in the other British islands, but also in North America and the West Indies." "In the United States of North America, typhus was originally introduced by the Irish, but has prevailed at different times as epidemic over a large extent of territory." These statements were possibly based on the publications of the older writers, such as Drake, who described under the name of typhus, epidemics that were really typhoid or cerebro-spinal fevers. Certainly the statement that typhus fever has become naturalized in America, is a singular error for such a work as Ziemssen. No less singular is the intemperate editorial of our staid Boston contemporary; who says[2]:

"We have thought it worth while to put together the main facts in the case as an illustration of the daily folly which we, as a nation, are permitting to be committed in the beautiful name of freedom, to the relief of other countries, the profit of a lot of steamship companies, the gradual degradation of our population, and the positive diminution in the safeguards for life, liberty and the pursuit of happiness which those already living here would like to be assured of. We open our doors to squalor, filth and misery—which mean typhus fever, and we admit leprosy almost as if these things were blessings in disguise.

"The reports of the Treasury Department show that for the last six months of 1891, the number of immigrants coming from Russia (Poland excepted) was 46,710, as against 20,934 in the corresponding months of 1890. The whole number of immigrants was greater in 1891 than in 1890 by about 100,000, and nearly half of this increase is ascribed to Russia and Poland.

"As sanitarians, with this text before your eyes, we desire to add our indignant protest to that expressed by the eminent statistician, General Francis A. Walker, in a recent lecture against the results of our immigration laws. There are times when charity should begin at home."

Such language is neither wise nor just. We do not have to admit typhus with these immigrants. The means of excluding the disease are perfectly well known, and within our power to use. If we do not choose to avail ourselves of these means, if we put the administration of quarantine in the hands of inefficient persons, why blame the immigrants? There is no special difficulty about detaining them until the danger is past, or in efficiently disinfecting their effects. What possible source of infection can compare with the importation of rags? And yet it has been shown that this traffic is absolutely safe if the proper disinfection is enforced.

[1] Ziemssen's Cyclopædia. Vol. I, p. 305–6.

[2] *Boston Medical and Surgical Journal*, February 18, 1892, p. 174.

Annotations.

AS an after-effect of that pest, the influenza, comes the nervous break-down of the doctors. The heavy work and prolonged anxiety of the last three months is followed by its legitimate consequences: insomnia, neurasthenia and general collapse of mind and body. Those that are wise do not try to take the imperatively-needed rest at their homes, but go off to some quiet spot where they can sleep. On many persons mountain air has a remarkable hypnotic action. Probably those who reside in elevated places would find sea air exercise a like influence. New Yorkers appear to experience a similar effect when they come to Philadelphia.

WITH the deepest regret we learn that the doors of the insane asylum have closed upon Roberts Bartholow. What an ending for such a life! To the very last, no evidence of mental alienation appeared in his lectures or his writings. The habit of a lifetime's assiduous labor carried him along in the well-worn grooves, although outside of them his malady was easily discernible. Hard work, no rest, no Sabbath, no vacation; by such means his powerful intellect carried him to the forefront of his profession; but at last outraged Nature reached her limit of endurance, and the break-down was complete.

NEUROLOGICAL works describe Cheyne-Stokes breathing as a moribund symptom, but la grippe seems to be the dry weather that has made this and several other "infallible" signs fail. Dr. Quine and I attended an old gentleman who was apparently in articulo mortis, with very decided Cheyne-Stokes breathing, subsultus tendinum, etc. We felt justified in believing the case beyond relief, and advised the stoppage of the medicine given by the previous doctor, and, more for the purpose of giving the family the satisfaction of "doing something," we suggested hot water bottles to the feet. To the astonishment of all concerned, the old man soon recovered, and in a few days was as chipper as a lark.

In answer to some of the sarcastic remarks of the family neither Dr. Quine nor I had the presence of mind to explain the astonishing benefits sometimes obtainable from derivation. It didn't occur to us that the hot-water bottles might have done it, nor does it yet.

With Dr. Dietrich I saw a lady who had had an apoplectic convulsion, lying comatose, with cheek-puffing respiration. Neurological writers consider this as denoting bulbar implication, and there was also Cheyne-Stokes breathing.

When the husband and daughter were asked how long she had been breathing in this manner they answered, "All her life, when asleep."

Dr. Christopher informs me that he has seen several cases of recovery after breathing a la Cheyne-Stokes.

S. V. CLEVENGER.

Letters to the Editor.

ACETANILIDE.

I WISH to call attention to a peculiarity of acetanilide which I have not seen mentioned by any writer. I take it frequently for headache, and in from ten to thirty minutes after taking, and then going out into the open air, I can smell a delightful odor, not unlike that of the tube rose. It always produces this effect upon me, as does also antikamnia. Would this not go to prove that antikamnia contains acetanilide? Antipyrine or phenactine does not produce this effect upon my olfactories. I would like to know if any one else has noticed this effect.

F. W. LESTER, M.D.

DAVID CITY, NEB

MENINGEAL INFLUENZA.

LA GRIPPE is marching on, but not fatally. I have lost one case, from apparently œdema of the brain. After the mesentery the lungs had been congested and the case began to improve, brain symptoms set in, and the boy, aged six, lay for nearly eight days unconscious, except now and then for a moment, when he would say, "Oh, dear," and one or two other words. He had much restlessness and a tendency to spasms, and finally convulsions of a mild type. I thought he had tubercular meningitis, but able counsel thought not.

He vomited very little, only a few times one day. He was sick two months. I was called to the case a month before he died. He had been treated by an old doctor of the Thompsonian school for the first month, who gave up the fight in despair; when the case fell into my hands, and a very able colleague was asked to assist me. We did our best, but with no good result, so far as saving the life of an only son of fond and wealthy parents. Alas! for the adverse fate of such loved ones. But do we know all? Not by any means.

THOS. W. MUSGROVE, M.D.

PUYALLUP, WASH.

THERAPEUTIC NOTES.

I HAVE treated in the past four years fifty cases of typhoid fever as follows:

℞.—Acidi carbolici,
Tr. iodinii..... āā gtt. xxxvi.
Bismuthi subnit..... ʒiss.
Ol. terebinthinæ..... ʒij.
Mucil. acaciæ.....q. s. ad ʒvj.
M.—S. Shake and take one teaspoonful every three hours in water.

If diarrhœa is troublesome increase the bismuth, and add a little laudanum to the above. Also, I give 20 drops dilute muriate acid three times a day to aid digestion, and quinine in the remission of the fever; acetanilide if the fever goes above 103°. This treatment has seemed to be all that could be desired.

Pneumonia.—For the contagious stage:

℞.—Tr. aconiti, vel veratri viridis..... gtt. v to viii.
Every two to three hours.

In the stage of hepatization, to promote absorption:

℞.—Ammonii carbonatis..... ʒij.
Potassii iodidi..... ʒiss.
Syr. aurantii cort..... ʒij.
Aquæ..... ʒij.
M.—S. Teaspoonful every two hours.

I also generally blister. *I never lost a case.*

When there is much depression and debility I combine digitalis with the ammonium potash mixture.

It may be well to say a word on "grippe," as we all have specifics. When it first appeared here in 1890 I was using the ammonia mixture suggested in the *Medical World*, and have seen little reason to change it. Antikamnia I have found the best analgesic. One singular concidence occurring in my practice,

which points to its neurotic tendency, was an extensive eczema in the course of the facial nerve. I had just returned from visiting the patient when I received my mail, and saw in the *Medical Record* a lecture by Burdon Sanderson, in which he described a similar case.

I have had some trouble with the bowels in a few cases. When they assumed a dysenteric character, the old stand-bys, lead and opium, utterly failed me; but I mastered the situation with this:

℞.—Acidi sulphurici dil.,
Tr. opii deod.,
Tr. cardamomi comp.....āā ℥ij.
Aq. cinnamomi..... q. s. ad ℥vj.
M.—S. Two to three teaspoonfuls every two to three hours, according to effects and necessity.

Also, valuable in other forms of diarrhœa and dysentery.

In some old debilitated cases I used the following with excellent results:

℞.—Ammonii chloridi..... ℥ij.
Tr. ferri chloridi..... ℥iv-vj.
Potassii chloratis..... ℥j.
Syrupi et aquæ..... q. s. ad ℥iv.
M.—S. Teaspoonful every three to four hours.

I wish to say so far as my experience and observation go I consider the above the most salutory combination in medicine for the conditions in which it is indicated, and its range of application is very large.

For cases of "grippe," characterized by pain in the orbital region, I have found gelsemium to act well:

℞.—Tr. gelsemii..... gtt. x-xii.
Aquæ..... ℥iv.
M.—S. Teaspoonful every ten minutes for the first hour; then every half hour.

For dysentery the following is a favorite:

℞.—Tr. opii deod..... ℥j.
Tr. catechu..... ℥iiss.
Bismuthi subnit..... ℥vj.
Sp etheris nitrosi..... ℥j.
Sp menthæ pip..... ℥ij.
Mucil. acaciæ.....q. s ad ℥viij.
M—S Teaspoonful every three hours.

The best all-round gargle for sore throat I have found is the following:

℞.—Aluminis (pul.)..... ℥ij.
Potassii chloratis..... ℥ss.
Tr myrrhæ..... ℥ij
Glycerini et aquæ..... ℥iij.
M.—S. Use as a gargle.

L. B. YOUNG, M.D.

ROLESVILLE, N. C.

The Medical Digest.

EPISTAXIS: AN EASY AND EFFECTUAL METHOD OF PLUGGING.—Undoubtedly plugging the nares by aid of Bellocq's cannula is an excellent method; but occasionally, especially in country practice, a Bellocq's cannula is not at hand, and some method easy, effectual and effected by material always within reach, must be resorted to. Such a method I have found in the following. A piece of old, soft, thin cot ton or silk, or oiled silk, about six inches square (a piece of an old handkerchief will answer) is taken, and, by means of a probe, metal thermometer case, or penholder, or anything handy, is pushed center first, "umbrella" fashion, into the nostril, the direction of pressure when the patient is sitting erect being backward and slightly downward. It is pushed on in this fashion until it is felt that the point of the "umbrella" is well into the cavity of the naso-pharynx. The thermometer case or probe, or whatever has been employed, is now pushed on in an upward direction and then towards the sides, so as to pull more of the "umbrella" into the naso-pharynx. The thermometer case is now withdrawn. We have now a sac lying in the nares, its closed end protruding well into the pharynx behind, and its open end protruding at the anterior opening of the nares. If it be thought necessary, and is convenient, the inside of the sac may be brushed with some household astringent, such as alum solution, turpentine, etc. A considerable quantity of cotton-wool is now, by means of the thermometer case, pushed well back to the bottom of the sack. Then, the thermometer case being held firmly against the packed wool, the mouth of the sac is pulled upon, and thus its bottom with the wool packed in it is pulled forward, and forms a firm, hard plug wedged into the posterior nares. We may now pack the sac full of cotton-wool, dry or soaked in some astringent solution. The mouth of the sac may now be closed by tying it just outside the nostril with a piece of strong thread; it is then trimmed by scissors and the ends of the thread secured outside.

The above method is easier than any I know when both nostrils have to be plugged. It might be suggested to oil the cotton or silk in order to render its introduction easy and to prevent it adhering to the mucous membrane, and to render it easy of removal; but I have never found any difficulty without the oil, as the blood renders the material wet and easy of introduction, while the oil does not facilitate removal, and may modify the effect of the astringents that may be used. The plug may remain *in situ* as long as any other nose plug. In removing the plug, open the mouth of the sac, and with small dressing forceps remove the cotton-wool bit by bit; if there is bleeding, simply syringe the sac with weak carbolic lotion or Condy's fluid and repack with clean cotton-wool, or wool impregnated with some antiseptic. If there is no bleeding when the wool is picked out, gently pull out the sac; or if it be adhering to the mucous membrane, syringe in a little warm water, and it may then easily be removed. This method has many advantages. (*a*) It is easy, quickly accomplished, and effectual, and the materials are to be found in every house, and, indeed, about everybody's person (I have plugged in this manner, simply using a handkerchief, one part of which was used for the sac, and the other, torn into narrow strips, in place of the cotton-wool); (*b*) no damage is done to the floor of the nose or back of the soft palate by strings, etc.; (*c*) no disagreeable hawking, coughing or vomiting takes place while the plug is introduced; (*d*) there are no disagreeable strings left hanging down the throat, causing coughing or sickness while the plug is in; (*e*) the plug can be removed gently without any force, so that no damage is done to the mucous membrane and no return of hemorrhage caused. I employed this method frequently when in country practice, and do so now in bleeding after operation on the nares, and have always found it to be satisfactory. As the method has been of great use to me, and as I am not aware that any one has spoken of it before, I take this opportunity of mentioning it, in the hope that it may be of use to some brother practitioner when confronted by an ugent case of epistaxis, and other means of plugging are not at had.—Philip, in *The Lancet*.

ICHTHYOL IN ERYSIPELAS.—One of the most recent writers on the subject is Dr. Stanislaus Klein, whose observations made in the first Medical Clinic, are published in the *Berl. Kl. Wochensch.*, March 3, 1891. When the identity of the coccus of erysipelas with that of pus was once recognized, it was natural that remedies found useful in the one disease should be tried where the other was present. Tessler found that the streptococcus did not grow when 1 c.cm. of ammonium ichthyol was added to 4,000 of fluid. In the clinic there were 31 cases of erysipelas in the past two years. These were treated with ichthyol, and the majority of the cases ran such a favorable course as to prove that the remedy was a most valuable one in the treatment of the disease.

His conclusions were as follows:

1. Ichthyol undoubtedly checks the progress of the disease either by its reducing action on the tissues, or by its direct action on the micro-organism, or by both actions simultaneously.

2. Ichthyol shortens the mean course of the disease by about one half.

3. The period of treatment is from three to four days.

4. The course of the disease is considerably milder when ichthyol treatment is employed.

As regards its mode of employment in the clinic, equal parts of the ordinary ammonia, sulpho-ichthyol and vaseline made into an ointment were made use of. If the erysipelas covers an extensive surface, a weaker preparation will suffice—equal parts of ichthyol, lanoline and water. If the dilution is still greater in hairy parts it can be gently rubbed in. Before using the ichthyol any wound present should be thoroughly cleansed and disinfected, and parts affected with erysipelas should be well washed with warm water and soap. Ichthyol is best rubbed in with the hand, commencing over the healthy skin, about a hand's breadth from the affected part and gradually passing over it. The inunction should be as vigorous as the tenderness of the parts will allow, and as much ointment should be used as will leave the whole skin of a uniform dark brown color. After the inunction the parts are to be wrapped in a thin layer of hydrophile gauze moistened in salicylic water, and over this a thicker layer of non-absorbent cotton must be lightly fixed with a bandage. This procedure is to be repeated three or four times a day, and for three or four days until the temperature has become normal. If the treatment be interrupted too early the disease will recommence.—*Med. Press.*

A CASE OF MELANCHOLIA FOLLOWING TYPHOID FEVER.—I wish to say merely a word or two with regard to a rather interesting complication of typhoid fever which has occurred in a patient now in the ward. This man was admitted to the hospital on the 24th of September, giving a history of having given up work three weeks before on account of headache, general pains and moderate diarrhœa. The appearances and his history indicated that he was in the third week of typhoid fever.

He was put on a liquid diet and given baths at a temperature of 70° every three hours when the temperature was above 102.5°. The temperature pursued a steadily downward course, only four baths being called for, and since the 28th of September the temperature has been practically normal. On the 8th of October, the patient having had eggs before, was given milk toast and soft solids to eat, and was allowed to sit up with the bed rest. On the evening of the 10th, for the first time, he appeared to be nervous and anxious about his condition. He asked if he were very ill, and whether there was any chance of his recovery. His anxiety was made light of, and when asked what had led him to have such ideas, he said that one of the patients had told him that he was very ill. On the 11th he was given for the first time meats, and was allowed dry toast with baked potatoes, but on this date he was more anxious about himself and seemed convinced that he was in a critical condition. On the 13th, his physical condition having steadily improved, the temperature having been normal for fifteen days, and the diet having been increased to nearly normal proportions, he was allowed to sit up for a short time out of bed. On the same evening he was found to be in a very nervous condition. He was despondent, weeping, and when the physician came by, seized his hand and begged him to save him. He declared he had seen the head nurse read the order that he was to be cremated that evening, and had also seen her receive the announcement that the box in which the operation was to be performed had arrived and was stored in the room below. He could not be convinced of the absurdity of his ideas. On the following day, at the suggestion of Dr. Hurd, the patient was kept in bed. The condition was not materially changed; he was tearful and very much alarmed about himself. He insisted that the head nurse had told him that he was to be cremated because he had acquired syphilis, which he denied, and his only request was always that he might be saved. On the following day he seemed rather better, and appeared a little ashamed of the ideas which he had had on the day before, but he soon went back into his former condition. To-day he is quieter and the delusions do not seem to be so active, but he is still very despondent about himself.

Cases of this nature, following acute disease, are not so very unusual, though this is the first which has come under my care following typhoid fever. The case was seen by Dr. Hurd on the 13th, and he has observed the patient daily since then, and I mention the case chiefly to bring out some remarks from him upon the subject.

[The patient after this became more silent and despondent, and was discharged on October 26 in a distinctly melancholic condition.]

Dr. Hurd said that such cases of insanity after any exhausting bodily disease were not uncommon. Insanity developed after the eruptive fevers, pneumonia, acute tuberculosis, typhoid fever; and, in fact, as a sequel of any acute disease which diminished the vitality and interfered with the nutrition, assimilation and blood-making power of the patient. The delusions of such patients were those which accompany innutrition, and are characterized by suspicion and apprehension. The deficient blood-supply to the brain, or rather the altered quality of the blood-supply by reason of the preceding bodily disease, explained the delusions. The development of post-febrile insanity generally points to a hereditary tendency to mental disease. The presence of this insane heredity developing active disease under such circumstances lends an unfavorable prognosis to most of these cases. Sometimes they recover, but the majority develop chronic forms of insanity.

Dr. Osler said that in his experience, especially after typhoid fever, the prognosis was favorable, and cited several cases reported by him in Fasciculus I. of the Johns Hopkins Hospital Reports for 1890, where apparent recovery from mental disease after a tedious convalescence occurred.

—Thayer, *Johns Hopkins Hospital Bulletin.*

PILOCARPIN IN DERMATOLOGY.—Though G. Simon, in 1879, and Pick, in 1880, published important papers on the Therapeutical Use of Pilocarpin in Diseases of the Skin, there has been no notice of its employment in England except in alopecia areata. In November, 1890, Dr. Klotz read a short paper on Pilocarpin in Dermatology, and, though his personal experience was limited, spoke in the highest terms of its value; but it is a matter for wonderment that the American Dermatological Association, before whom the paper was read, seemed to be unable to discuss it from lack of experience of the use of the drug.

There is abundant *a priori* reason for expecting benefit from its use in cases of great thickening of the skin, such as chronic eczema or scleroderma. Of the latter disease I have had no case; and though it does not fall to the lot of a physician to a general hospital to see many cases of very chronic eczema, I have tried pilocarpin in a few with the happiest results. It has been objected that it is a drug requiring heroism to administer and great care in its administration. If, as is indeed the case, this be so, it can be replied that we want to use pilocarpin only in cases in which other remedies are useless, and our patients often in very great distress.

S. P. came under my charge after having spent much time and money at Harrogate and elsewhere in trying to get relief. For fifteen months he had had eczema, and suffered acutely from the itching and distress dependent upon it. Nothing had given him much relief. He was ordered bran baths, and a lotion containing half an ounce of liquor carbonis detergens to a pint of lime water, while liquor arsenicalis, with small doses of iodide of potassium, was given internally. When I saw him his skin was enormously thickened and pigmented by the protracted inflammation, and I held out to him no hope of improvement until this thickening had been absorbed. To effect this, ointments containing salicylic acid were tried, but without much result, so on March 5, 1891, he was admitted into the General Hospital to try subcutaneous injections of pilocarpin. The dose employed was at first one-eighth of a grain, and subsequently one-sixth of a grain, twice daily. There was very little sweating at first, but a good deal subsequently; otherwise, beyond relief to the itching, no obvious results were noted; but gradually the skin got thiner and the irritation less. He had to leave the hospital on April 2 for business reasons, but was readmitted on June 9. The same treatment was adopted, and on July 8 he was again discharged as he felt so very much better. Two months ago I received a very grateful letter from him, saying that he was quite well and that his skin was normal. He had altogether 110 injections, but never suffered local or general discomfort therefrom.

Though the course of treatment may seem to have been very prolonged, and to be one requiring great patience, both on the part of the patient and the doctor, it must be remembered that we know no other remedy which could be expected to produce anything like so good, if indeed any, result.

Pachydermatous conditions are always serious, and though local thickenings may be fairly easily dealt with, a general diffuse chronic inflammation of the skin has hitherto been almost beyond the power of medicine to cure. The difficulties of applying keratolytic agents over a large surface are almost insuperable, and the advantage is not commensurate.

For the relief of prurigo senilis I have found nothing so useful as the hypodermic injection of pilocarpin, and, though the relief is only temporary, to a patient worn almost to death by itching and sleeplessness a few days' respite is a glimpse of heaven. In psoriasis I have met with no good results from the use of pilocarpin, and in subacute eczema with bad ones.

—R. M. Simon, in *Brit. Med. Jour.*

FUNCTIONS OF THE THYROID GLAND.—Such summaries of the leading symptoms in the cachexia, as the space at my disposal enables me to give, I have now made. I desire only to point out that the differences in the various classes of animals and individuals of the same class when investigated will infallibly be found to demonstrate the universal application of the results of experiment, and that, like all complex and far-reaching processes, the cachexia is a compound of several factors. Under these circumstances, it will vary in phases according to the special predominance of one or other factor. I would venture, therefore, to repeat here the classification of the symptoms which I published elsewhere, as follows :—Stage I. Neurotic. Stage II. Myxœdematous. Stage III. Cretinic. According to the virulence of the cachexia, death may occur in any of these stages, but given any case of total disease of the thyroid gland, the symptoms of the cachexia will invariably be found to follow the order just given, and any set of symptoms can be selected and referred to their proper position in the evolution of the cachexia in each particular individual.

Summing up the foregoing pages, it seems to me that the thoughts and methods of reasoning of Hofrichter on this subject have not been sufficiently before the minds of those who have taken up the question of the function of the thyroid. Hofrichter, early in this century, objected to the anatomical theories which regarded the gland as a mere diverticulum of the cerebral circulation, and his objection was logically founded on the simple fact that no experimental proof of such theories existed. From thence he proceeded to discuss the relations of the gland, and by the procedure of exclusion arrived at the definite opinion that it acted on the blood, deoxydizing it, and in other ways chemically changing it. The same line of thought was pursued by Vest, who argued that the thyroid altered the blood, but he was led to believe that this alteration increased the assimilation of the chyle, for the support of which belief, of course, no facts are available.

The broad views expressed in the writings of these early writers find confirmation in every fresh investigation of modern research, for, with the mass of facts now at our disposal, it can be scarcely gainsaid that in the first place the thyroid gland does play a definite part in the economy, and that the cachexia which follows its removal is not due, as has been alleged, to injuries of the nerves in the neck.

Further, the more careful examination of the structure of the gland, has shown that it is a secreting structure, and consequently operates by influencing the metabolism of the blood, and therefore of the other tissues.

The behaviour of the tissue in responding by hypertrophy, when a part of the gland is lost, the fact that a certain proportion must be maintained for the purpose of health, that its (metabolic) importance varies directly with the activity of the vital processes, and is consequently greater in early life and diminishes with age—all demonstrates indirectly the worth of the gland, and, in fact, its indispensability.

Crucial evidence upon these latter points is afforded by the remarkable results of transplantation of thyroid tissue in animals.

Finally, the array of symptoms evoked by the extirpation of the gland, the constancy of their appearance and the remarkable differences exhibited in the rapidity and extent of their development, according to the special metabolism of the class of animal under observation, establishes clearly the position which the gland occupies in the economy of the body.

So definite and pronounced is the cachexia thyroidectomica, that few subjects in the range of pathology offer a more fruitful and inviting field of research. That others may be tempted to enter upon it and extend our knowledge of this matter, is the object of these remarks.—Horsley, in *Brit. Med. Jour.*

Intestinal Antisepsis.—Mya and Sanarelli, in a very recently published article, give the results of a large amount of work upon the influence of a high degree of "hematolysis" as a favoring cause of the infectious diseases. Using a blood-destroying agent, acetylphenyl hydrate, and various injections into rats, guinea-pigs, pigeons and dogs, and employing anthrax bacilli and pneumococci as their test agents, they come to the conclusions :

1. That destruction of the blood-corpuscles as well as other well-known causes (bleeding, weakness, fasting, etc.,) favors the beginning and course of an infectious disease in animals that are possessed of only a relative immunity against this disease under natural conditions.

2. That the same destruction of the blood-corpuscles does not, however, favor infection in animals that have a high degree of immunity.

In the line of the same general subject, but in a different direction are the researches of Ferranini, in which he attempts to determine the *antipeptic* dose of substances that are often used for their antiseptic action. This antipeptic dose, he calls that amount of the material under investigation that, in one liter of fluid, will prevent the tranformation of blood-fibrin into peptone under the action of chlorohydrate of pepsin. It is interesting to know that he found non-antipeptic, even in a proportion as high as five parts in one hundred, such substances as iodoform, boric acid, sulphate of quinine, turpentine, iodol and naphthol-B. He lays especially stress upon the advisibility of those attempting to secure stomachic and intestinal antisepsis being also familiar with the antipeptic action of the substances used.

Omeltschenko gives the results of many experiments as to the effects of certain of the ethereal oils upon the bacteria of typhoid, tuberculosis and anthrax. His conclusions are of importance as being steps in a direction giving much promise for further investigation, both experimentally and clinically. Some of them are :

1. The vapor of the ethereal oils has a definite disinfective action. Curiously enough he puts oil of cinnamon, oil of fennel, and oil of lavender at the head of the list.

4. The protoplasm of the bacteria uudergoes a specific change, as is seen by their behavior towards aniline colors and the granulation of the protoplasm.

8. Emulsions of ethereal oils diminish their volatility.

9. Air only takes up a certain quantity of the vapor, and violent forcing does not increase this quantity. The air must be renewed as often as a knowledge of the amount it takes up and its effect upon the specific micro-organism makes necessary.

Such experiments as these are of the greatest importance, in the special subject under consideration this evening, even in view of the work of Korkunoff negativing the supposition that infection can take place through the normal intestinal wall.

The general influence of surroundings upon the attacks of infectious disease is well illustrated by Canalis and Morpurgo in their work showing the effect of such influences, notably in one instance. Experimenting with pigeons, that are immune to anthrax under normal conditions, inoculations of the bacilli were made, and at the end of eight days fasting was enforced. As soon as this was done, the birds died of anthrax, showing not only that the bacilli lived in their bodies during that time, but that the influence of hunger had a very remarkable effect in diminishing the immunity of these birds against the attack of the micro organisms.

Coming now to work bearing more directly upon the subject, some of the most important that has been published may be be very briefly summarized.

Cantani, in an interesting article upon intestinal antisepsis, makes the fundamental statement that the various bacteria in the intestinal tract of the living body cannot be killed by any chemical agent with which we are yet familiar, except in the rarest cases, and that for the present attention must be directed towards retarding the development or decreasing the numbers of those present. The two roads by which materials with these objects in view can be introduced are the mouth and the rectum. If the first be chosen, the results are extremely uncertain, for the reason that the material employed must either be unaffected by the gastric juice, or else it must be soluble, and, therefore, lose a large part of its local effect by reason of absorption. Administration by the rectum, is, therefore, the shortest and most certain method, for a certain distance. By this means we have control of the bowel as far as the fluid or other material can be passed, and may govern the condition of things as we choose, at least for limited periods of time. For this purpose, the author recommends tannin and carbolic acid especially. The development of cholera spirilla was retarded by the use of a tannin solution of .5 per cent. strength, and they were mostly killed after six hours ; they were completely destroyed after one and one-half hours contact with a 1.5 per cent. solution.

Baginsky points out that the fermentative changes in the intestine represent more than the mere presence of bacteria and means to get rid of them. He showed by experiment that the bacterium aceticum, normally present in the intestine, destroys certain of the bacteria of green diarrhœa. Therefore, it is quite possible in certain cases, that a powerful anti-bacterial treatment, even if successful in destroying germs, may be undersirable, in that it interferes with the conflict between different forms of micro-organisms. Woodbridge reviews the work upon intestinal antisepsis, and speaks of that tending to show the value of creolin and naphthol-B.

We are familiar with the mass of assertion in regard to the experimental and clinical value of various of the coal-tar colors, and if certain of the observations reported are true, it will hardly be possible to agree with the editorial remark of the *Boston Medical and Surgical Journal* (vol. cxxii, p. 18), that "Attempts to control the course of typhoid fever by antisepsis of the bowel will be ultimately abandoned as irrational and unavailing." If the day should dawn upon which we could feel that there had been secured the material effective in the arrest or destruction of

the typhoid bacillus in the body without injury to the patient, then these methods may be considered out of date, but until then something of the sort spoken of seems to be the only directly effective means at our command.

—Ernest, *Boston M. and S. Journal.*

In the *Maryland Medical Journal* Dr. Walter B. Platt discusses the relations of the profession with the poor. Concerning the dispensary, he speaks as follows:

If a free dispensary is so arranged as to treat the very poor only, it will do the profession no injury; on the contrary, be a positive benefit by relieving them of the care of the class who tax their time and strength without yielding them any return.

Evidently the sticking point is, Who are and who are not proper objects for free treatment? It should be as much the business of a well-conducted dispensary to diagnosticate poverty as disease, and always the first before the second. How is this to be done?

The ordinary way is by careful questioning, at the same time using the judgment that comes with a large acquaintance with the class in question, to determine how far their statements are to be believed. I usually ask: Are you able to pay a physician? What wages do you or the head of the house receive? Are you out of work? How many children are in the family? An ideal way is to employ in every case the efforts of a specially organized body whose business it is to find out just what we want to know, and abide by their decision, rendering aid without it only in urgent cases and until they can be heard from. I refer to the Charity Organization Society, who send a speedy and wonderfully accurate estimate of the ability of the family to pay, and whether or not they should be treated free of charge.

A good way would be to have a central bureau of medical relief, to whom the applicant should first go, and who should treat an urgent case without delay, referring them to the general dispensary nearest their homes for further treatment. All others should be carefully examined as to their ability to pay a physician in their own neighborhood. With the recommendation of this central office the patient might be treated at any dispensary for thirty days, when another permit could be issued, and so on.

To go to the central office twelve times a year for a recommendation is surely an easy way to receive medical treatment, if such treatment is necessary. If, however, the patient is able to pay even a small fee to a physician, the dispensary and public opinion, instead of preventing him by any device, should compel him to make such payment as the most honorable of obligations. To give a man what he can by honest labor pay for, is to take the first and a long step toward making that man a blatant communist or beggar, who wants every man with more than himself to divide with "his laziness and improvidence."

Convulsion Treated by Compression of the Carotid.—A. H.——, widow, aged sixty-one, had been under my care as a pauper patient on and off for some years, suffering from chronic rheumatic gout. She was seized with influenza and had a severe attack of bronchitis, which made her very weak, and I had great difficulty in obtaining any nursing or assistance in feeding her. However, she was doing fairly well; when on seeing her on the 15th I found she had paralysis of the right side of the face, arm, and leg. I saw her on the following morning, and in the evening at half-past ten I was sent for to see her, as she was said to be dying. When I arrived I found her in a fit, which the attendant said had been going on for two hours. Her eyes were turned to the right, face and body twitching, and she was puffing away like a steam engine. I looked on it as a case of embolic plugging in the left hemisphere and hyperæmia of the right, as the eyes were turned to the right side; and, having Dr. Roheim's treatment fresh in my mind, I thought I would compress the right carotid. I found it rather difficult, the patient being very fat, the throat moving up and down in the convulsion, and the carotid beating with such force that it was difficult to prevent it running under the thumb. I used the thumb to compress, the rest of the hand getting power from behind the neck. In a few seconds only the twitchings began to cease, then the breathing grew slower and deeper, and in not more than a minute and a half or two minutes the face grew calm, the eyes regained their position, and there was an attempt on the patient's part to wipe the lips with the sound hand. I then left off the compression. For a minute or two the patient went on breathing calmly, then suddenly the eyes went up to the right, the face twitched, the breathing became again puffing, and the body was convulsed. I immediately compressed the carotid again as firmly as possible, and had the great satisfaction of seeing the patient in certainly less than two minutes come out of the fit, give me her hand, and pull herself up in bed, and, although dazed, still sufficiently clear to attempt to put out her tongue when told to do so. I left her to the nurse, and she had no return of the fit. I know of no other treatment that could have been adopted in an emergency that would have so rapidly relieved the patient.—W. C. Hearnden, in *The Lancet.*

Seed Growth and Electric Currents.—Some experiments, very simple, but of quite startling interest, are described in last week's number of the *Chemical News* (February 5). Dr. James Leicester, of the Merchant Venturers' Technical School, Bristol, has been studying the growth of seeds in what may be described as electrified earth. Scarcely any apparatus was used. A box about three feet long and two feet and a half wide was filled with soil, and near each end two metal plates, one of zinc, the other of copper, each about one square foot in size, were immersed, and were united outside by a copper wire. It is evident that by slow chemical action on the zinc a current will pass through the earth towards the copper, and returning by the outside copper wire will form about the simplest of simple cells. Various seeds were sown in the earth between the plates, and in every case it was found that the seeds grew much quicker than they did when the plates were absent. Similar and even more definite experiments were made with glass tanks, some with and some without the metal plates. All of them were fitted with the same earth, and were treated with the same quantities of water. In one typical instance the result is thus stated: "In the case of hemp seed, it was fully an inch above the surface before there was any sign of it in the ordinary vessels." The experiments were varied in several ways, but always with substantially identical results. It was found that if the soil was watered with a little very dilute acetic acid, the growth of the seeds were much quicker when the metal plates were present, whereas without them no difference was noticed. Further researches on the growth of plant life are in progress, but have as yet yielded only

negative results. It is impossible to anticipate the importance which may in future attach to these remarkable observations. They have no analogy at all with the experiments of Dr. Seimens, also interesting and important, on the stimulation of vegetable growth by electric light. Every one knows that electric light is closely analogous to solar radiation, and it is not wonderful that the work of the sun's rays can be imitated, if not equaled, by their own important rival, the voltaic arc. But in these experiments there is no question of light or heat radiation, but a subterraneous impulse imparted to the soil.—*Lancet.*

THE GASSERIAN GANGLION AND ITS REMOVAL.—This lecture was entirely devoted to the subject of the Gasserian ganglion and its removal, an operation which the lecturer has now performed five times for the relief of intractable Trigeminal tic which had resisted all other medical and surgical treatment.

A short sketch was given of the anatomy of the ganglion, and its relations both to the base of the skull and to the carotid artery. Special emphasis was laid on the fact that it was practically an extra-dural structure, for although the Cavum Meckelii in which it is placed is lined with dura mater, yet the inferior lamella is so thin that it can be disregarded.

There are three methods at present by which the ganglion has been reached, viz., (1) by Mr. Horsley's intra-cranial method; (2) by ablation of the superior maxilla and trephining the base of the skull; and (3) by opening the base of the skull through the pterygoid region, the method adopted in the lecturer's last four cases. The last plan is an elaboration of Krönlein's modification of Pancoast's original proceeding for reaching the base of the skull, and not the Pancoast-Salzer method as recently stated by Mr. Horsley. It appears that Prof. Andrewes, of Chicago, has been working at this subject on the cadaver and has come to the same conclusions as Mr. Rose, as to the best means of exposing the ganglion.

Mr. Horsley's *intra cranial operation* is then briefly alluded to and criticised. He opens the middle fossa of the skull through the temporal region, and after incising the dura mater partly moulds and partly lifts the temporo sphenoidal lobe upward, so that by means of an electric illuminator the base of the skull can be seen. The root of the nerve is looked for as it emerges from the pons and divided, and by again incising the dura can be reached and removed. Objection was taken to this plan of treatment on the score of the difficulty of reaching the ganglion as well as of its severity. The compression of the brain cannot be beneficial to it, and hemorrhage to a considerable extent is liable to occur, not only from some small veins passing from the brain to the superior petrosal sinus, but also from the sinus which can scarcely escape division. The only case in which Mr. Horsley has attempted this operation on the living subject proved fatal in seven hours from shock, and the lecturer stated that he considered the proceeding scarcely justifiable in the light of present experience.

The removal of the ganglion *after oblation of the superior maxilla* was performed in the first of Mr. Rose's cases, and he explained that he would not have adopted such a disfiguring procedure, had not the patient insisted on the removal of what seemed to her the main focus of the disease, viz., the right superior maxilla. The bone was excised in the usual way, and the foramen ovale easily exposed; a disk of bone was removed, having this opening as its center, and the ganglion extirpated. In spite of the wound communicating with the mouth, it did well, and the only complication was a violent panophthalmitis which necessitated removal of the eyeball. This may have been due to chloroform dropping into the eye during the struggles of the patient, but the lecturer regretted that he did not render the conjunctival sac aseptic as a preliminary precaution, or protect the globe subsequently. The patient has recovered perfectly, and there has been no recurrence of the pain since the operation, now twenty-two months ago.

A full and detailed description was now given of the operation *through the pterygoid region* which Mr. Rose has now performed four times.

The patient should be carefully prepared and the skin of the face must be rendered aseptic by thoroughly washing it both before and at the time of the operation with a solution of 1-20 carbolic acid. The ear must be purified and plugged with wool or gauze, and the conjunctival sac cleansed by a 1-2,000 sublimate solution; the eyelids should be stitched together.

The operation was described in six stages.

STAGE I.—*Skin Incision and Reflection of Flap.*—A nearly semi-circular incision is made by entering the knife just below the outer angular process of the frontal bone, and carrying it back along the upper border of the zygoma to its posterior extremity. The incision now passes down in front of the ear over the parotid region to the angular jaw coursing forward along the lower border of the horizontal ramus as far as the facial vessels. The flap so marked out is dissected up, care being taken not to interfere with the facial nerve or Stenson's duct; during the operation it may be stitched out of the way to the upper part of the chin and there protected from injury by a gauze dressing. The lecturer claimed that by this incision he gains a maximum of space with a minimum of disfigurement, and that no paralysis of the facial muscles is thereby induced.

STAGE II.—*Section of Zygoma and Coronoid Processes, and Detachment of Masseter and Temporal Muscles.*—The zygoma, stripped of its periosteum, is drilled behind and before with a drill driven by a dynamo to provide a passage for silver wires in order to readjust the parts after the operation. The holes should be a third of an inch apart, and the zygoma is divided by a fine saw between them. The anterior saw-cut it directed obliquely downward and forward, and the posterior one as far back as possible. The bone is then detached and turned down with the masseter, care being taken not to interfere with the fibers of the muscle attached to its under surface, upon which its nutrition depends and by which necrosis may be prevented. If the detachment of the anterior fibers of the muscle to the malar bone be freely divided, the zygoma can be turned well downward and backward out of the way without doing any harm to Stenson's duct.

The coronoid process is now exposed, and the lower part of the temporal muscle and tendon. In his first three cases, Mr. Rose had drilled the bone before dividing it, and had wired the fragments together subsequently; but the atrophic and cicatricial contraction of the muscles had, in one or two instances, so interfered with the movements of mastication that in the last operation he merely divided the process by an incision downward and forward and turned it up, excising it and the lowest portion of the tendon before closing the wound.

STAGE III.—*Search for the Foramen Ovale.*—The next step in the proceeding is to clearly define the position of this opening, and to accomplish this, the external pterygoid muscle has to be detached from the skull by the raspatory and drawn down. Should there have been no previous operations in this region, the proceeding will be facilitated by finding firstly, the inferior dental or gustatory nerve and tracing it upward; but if they have been removed by a previous neurectomy, the foramen must be discovered by its relation to the surrounding bony landmarks. These were carefully described in the lecture. Hemorrhage during this stage is very profuse, especially from the pterygoid plexus of veins; if possible, the internal maxillary artery should be tied early.

STAGE IV.—*Opening the Base of the Skull.*—In Mr. Rose's first four cases, this was accomplished by inserting the blunt-ended center-pin of a specially constructed long-handled trephine into the foramen ovale, and removing a disc of bone around it. The contiguity of the carotid canal necessitated great care being taken, and usually he had been able to break off the inner portion of the disc along the sutural line, between the wing of the sphenoid and the petrous bone. But his fourth case resulted in a certain amount of epistaxis for some days, and altered blood-like coffee-grounds were also vomited. This led to a modification of the plan, inasmuch as the bleeding must have come from the trephine wounding the Eustachian tube, which lies within a centimeter of the foramen ovale. In his last case, the trephine was applied a little anterior and external to the foramen, the circumference just impinging upon that opening. The varying thickness of the bone in that position was commented on.

STAGE V.—*Removal of the Ganglion.*—In order to accomplish this, the dura mater is repressed by spatulæ, and the trunk or stump of the third division is used as a guide. The loose connective tissue about the posterior half of the ganglion is easily detached, but the anterior part is more closely adherent to the dura, and must be more carefully dealt with. The root of the nerve and its second division are divided by a special cutting hook made by Mr. Hawksley, and the ganglion is then removed piecemeal by forceps. Professor Andrewes uses a curette to thoroughly break it up after incision of the capsule.

STAGE VI.—*Reposition of Displaced Structures and Closure of Wound.*—Bleeding having been staunched, and the wound thoroughly washed with carbolic lotion, the coronoid process is removed or sutured (preferably the former), and the zygoma replaced. The skin incision should be sewn up by a fine catgut suture, and drainage is unnecessary if sponge pressure be applied. Both eyes should be kept bandaged for a few days, and that on the affected side for three or four weeks. Healing by first intention has occurred in all the cases.

A brief account then followed of the different patients operated on in this manner, from which it appears that the lecturer has operated five times, and Professor Andrewes twice. Mr. Rose continued thus:—

In considering the results of partial or complete removal of the Gasserian ganglion, the first question which has to be answered is, naturally, "What effect has this proceeding upon the pain?" Up to the present time we are able to give a satisfactory reply; all the five patients whom I have treated in this way have remained free from the typical and terrible paroxysmal attacks from which they had previously suffered. It is true that my first case was done only twenty-two months ago, and the last only sixteen days; consequently, it is too early to speak with confidence as to the permanent character of the relief; but the results up to now are sufficiently encouraging to lead me to continue in the same line of action. Absolute immunity from any kind of pain can hardly be expected after such a considerable disturbance of the structures at the base of the skull, and for some time there may persist a sore and stiff sensation about the region operated on as well as pains in the head; but these are not estimated of any moment by patients who have previously suffered such intense agony. The interference with the movements of the lower jaw is undoubtedly inconvenient, and renders the process of mastication a little difficult; but I hope that this may be avoided in the future by the removal of the coronoid process.

As to the effect upon the distribution of the sensory fibers of the fifth nerve, it is interesting both from the clinical and physiological sides to observe the rapid diminution of the anæsthetic area, and it would appear that the distribution of sensation is taken up by the neighboring branches much in the same way as arterial anastomosis takes place in the vascular system. This re establishment of sensation is a fact which cannot be disregarded prognostically, although it is not necessarily the precursor of a relapse.

The appearance of the side of the face operated on is characteristic of trophic disturbance; the skin has a shiny, somewhat injected look, whilst the hollows in the temporal, pterygoid and maxillary regions on that side clearly demonstrate the existence of muscular atrophy and cicatricial deposit.

The effect upon the nutrition of the eyeball is decidedly serious. In the first case, as is well known, the organ was lost, a result of suppurative panophthalmitis, and in two of the other cases the nutritive state was for the time considerably depressed. It is probable that the trophic centers for its nutrition are contained in the upper and anterior segment of the ganglion, and if this be so, the chances of damaging the eye may be lessened by leaving this portion intact, even though the trunk of the nerve be divided behind the ganglion. On the other hand, the interference with one part of the ganglion may induce degenerative changes in the remainder, which will effectually prevent a recurrence of the malady, and yet will not be sufficient to cause permanent damage to the eye.

In concluding, Mr. Rose maintained that in the course of these lectures he had demonstrated (1) that in severe cases of epileptiform neuralgia of the trigeminal both medical and surgical treatment had hitherto been unavailing to give permanent relief, and (2) that extirpation of the Gasserian ganglion through the base of the skull, though admittedly difficult, need not endanger life, and at present holds out the best prospect in dealing with the intractable forms of trigeminal tic.—*Med. Press and Circular.*

SEPTIC BRONCHO-PNEUMONIA OF INTESTINAL ORIGIN.—Sevestre, speaking on this subject at a meeting of the Société Médicale des Hôpitaux, held on the 22 ult., reminded his audience that, in calling attention to these cases fiue years ago, he had formulated the following conclusions:—

1. In badly nourished children the intestinal contents may undergo decomposition, the products giving rise to fetid diarrhœa and septic enteritis.

2. This morbid condition may be the starting-point of general infection, revealing itself clinically most commonly by pulmonary congestion and broncho-pneumonia.

3. The best means of combating the diarrhœa an preventing the lung complications consist in the exhibition of such intestinal disinfectants as calomel and naphthaline. (To this list M. Sevestre would now add naphthol, betol and benzonaphthol.) The above conclusions were based on clinical grounds only. M. Sevestre announced that M. Lesage was now prepared to endorse them from a bacteriological point of view. This observer stated, in effect, that he had proved the exclusive dependence of broncho-pneumonia occurring in the course of septic enteritic on the presence in the lung tissue of the bacterium coli. There had been examined five cases in which pulmonary lesions, together with swelling of the spleen, had been noted during life. In one instance there was found, post-mortem, intense generalized congestion of the lungs, which floated in water, became paler, and soon resumed their normal tint. Miscroscopical examination revealed the presence of the bacterium coli. In one of the lungs, islets of broncho-pneumonic consolidation were found inclosed in the congested tissue. In another case the broncho pneumonic process had reached the suppurative stage. In these consolidated areas, the bacterium coli was found to the exclusion of all other micro-organisms. Inoculated into animals, its virulence proved to be identical in degree with that of the same micro-organism as found in its usual habitat, the intestine. The bacterium derived from the suppurating nodules had acquired pyogenic properties, for its introduction into the areolar tissue of the rabbit and the guinea-pig provoked the formation of a local abscess, followed by death in four or five days. M. Lesage also discovered the bacterium coli in the air of wards occupied by several children under treatment for septic enteritis, as also in the sterilized milk supplied to the little patients and to their neighbors in the same room. The bacterium was found to be growing in the milk as a pure culture. The above interesting facts lead M. Lesage to recommend the isolation of these little enteritic patients in special wards. While admitting the important part played in this class of cases by the bacterium coli in the production of the above-mentioned pulmonary complications, M. Sevestre does not feel justified in attributing to this microbe the exclusive *rôle* claimed for it by M. Lesage. Accepting as true the contamination of the milk, even previously sterilized, supplied to a large children's ward, he is of opinion that such a mishap may be best averted by the hospitalization of the infecting patients in a number of small wards. Alluding to the suggestion advanced by M. Comby, that the stools be disinfected by means of cupric sulphate or corrosive sublimate, M. Sevestre pointed out some practical difficulties, in that the motions are often passed, not into bed-pans, but into the bed. I fail to see why the same disinfecting process should not be applied to the bed linen. This discussion seems to point to the fact that, in future, greater attention must be paid to intestinal antisepsis than has hitherto been the case, if we wish to avoid complications which too frequently prove fatal, not to mention the infection of patients under treatment for other diseases who may be occupying contiguous beds.—*Lancet.*

A CASE OF ACUTE ORCHITIS FOLLOWING INFLUENZA.—On January 3 I was called to see a man, J. C——, aged thirty-two. He was complaining of sickness of the stomach, pains in his head, limb and back, and a slight nasal catarrh. His temperature was 102.8°; pulse 120. I diagnosed the case as influenza, and put him on quinine, dilute hydrochloric acid, and bark, and a nourishing but plain diet. On January 12 he had become almost quite well again, but had not left his room; and when visiting him again on the 13th I found him complaining of pain, swelling, heat and redness of his left testicle. Temperature 102.4°. I gave him a smart purgative, and had the scrotum supported by a pillow placed edgewise between his thighs, and as the pain was very great I applied a belladonna plaster over the scrotum and along the groin. He got on well, and by February 1 had become convalescent.—T. G. Kelly, in *The Lancet.*

Medical News and Miscellany.

SKELETONS can be imported free of duty.

FOR the week ending February 16, New York City reported 86 cases of typhus fever, 225 of scarlatina, 204 measles, and 123 diphtheria.

ST. FRANCIS' HOSPITAL, in Wilbur, near Trenton, New Jersey, has been closed, small-pox having developed in some of the patients.

BLACK diphtheria has broken out in the lumber camps one hundred miles north of Bellville, Ontario, and eight deaths have occurred. Men are leaving the region.

THE city of Philadelphia has adopted the kreatin test for tuberculosis in animals, discovered by Dr. S. G. Dixon, and is making extended trials of it in the case of suspected cattle.

A DRUGGIST in Michigan has been knocked down and robbed by highwaymen. They were silly enough to think the druggist could carry his little 4,000 per cent. profit about him.

THE newspapers cannot always be trusted when there is a chance to enhance a sensation. It was widely announced that the seven immigrants from the Massilia, who went to Chicago, were down with typhus, but the *Daily News* states that none of them are affected.

WE have received the prospectus of a journal entitled "Medicine in Its Relation to Civilization," edited by Walter M. Rew, M.D., Cincinnati, Ohio. If this be the W. May Rew, M.D., with whom we once had some dealings, we desire to say that our account against him for advertising can be purchased very, very cheaply.

THE *Electrical Review.* New York, the first electrical weekly published in this country, issued a particularly handsome Decennial Number, dated February 20, 1892, in commemoration of its tenth birthday. The past decade of electrical progress is most interestingly presented, and what may be expected in the future of this science is outlined. Important and instructive articles specially contributed to this issue by leading electrical workers appear, with many portraits of interest. The Decennial Number of the *Electrical Review* is entitled to rank with the finest magazine publications in point of artistic and literary merit and it is highly creditable to the publishers, as well as to the science of which it is the progressive and enterprising exponent.

THE late Sir Morell Mackensie, during his thirty years of practice as a physician, always earned s large income. In 1862 he was making $25,000 a year, and twelve years later his regular income was from $60,000 to $75,000 a year, the bulk of which was obtained from $5 fees.

DR. FERGUSON offers the *Indiana Medical Journal* for sale. It is ten years of age, has over 1,000 sucscribers, and a good advertising patronage, the February number containing twenty-two pages. There is enough of local interest in Indiana to warrant the existence of a local monthly, and it ought to be a good investment for the right man.

FROM a circular at hand, purporting to emanate from a Mississippi doctor, we learn that there is war between him and the Mississippi State Medical Asso ciation. Whether the doctor was expelled from the Association, or whether he expelled the Association, we are in doubt, not having access to all the documents, but as he is a graduate of a (top) lofty University we incline to the latter view.

TREATMENT OF INFLUENZA.—The following compounded in the form of wafers or cachets is being extensively used in France:

Phenacetine	3 grs.
Salicylate of quinine	2 grs.
Camphor	1 gr.

For each wafer. Four to be taken daily.

THE Forty-third Annual Session of the Medical Association of Georgia will meet in Columbus, Ga., on April 20, 21, 22. The officers are: President, G. W. Mulligan, M.D., of Washington, Ga.; Vice-Presidents, James M. Hull. M.D., of Augusta, Mark H. O'Daniel, M.D., of Macon; Treasurer, E. C. Goodrich, M.D., of Augusta; Secretary, Dan H. Howell, M.D., of Atlanta, Ga.

THE new Institute of Hygiene of the University of Pennsylvania, was formally presented last Monday to the provost and trustees by Dr. S. Weir Mitchell, on behalf of Henry Charles Lea. Provost Pepper accepted the gift, and addresses were also made by Dr. John S. Billings, Director of the Institute; Dr. Benjamin Lee, Secretary of the State Board of Health, and Dr. H. P. Wolcott, President of the Massachusetts Board of Health.

THE position which we took nearly four years ago with reference to the use of peroxide of hydrogen in the treatment of diphtheria in a paper read before the St. Louis Medical Society, has been strengthened with the experience which has followed. We would emphasize every material point then made in that paper. If asked "If we were to depend upon only one agent in the local treatment of diphtheria, what would we call for?" the response would be emphatic, in thundering tones, "Marchand's Peroxide of Hydrogen." And if we ascertained that any druggist furnished our patient with any other than Marchand's it would be sufficient for us to condemn that druggist, and rather than run the gaunlet of his repeating the offense, we would supply the medicament at our own expense.—*Med. Mirror.*

EVERY now and then some one rises to remark that there is danger in the taking of oaths; in that the Bible presented by the magistrate has felt the pressure of countless lips before, among which it is not unreasonable to expect that some were defiled by disease. But before seeking on this very shallow ground to change the customs of law, it is well to reflect that the microscopic danger may be entirely avoided by simply opening the Book and kissing it on the inside. Nearly every one kisses the cover; and, for ought they know, the oath may have been sworn over Hoyle or Rabelais instead of the venerable Book.

HE couldn't be a Briton and get a thing into his head straight. And so we are not surprised when an English contemporary quotes a recent editorial on "Appendicitis," from this journal, and gravely condemns it from his own misconception. We do not in the least object to the recent advances in abdominal surgery—male or female. We are glad to applaud every legitimate advance in surgery; and we have many to applaud of late. But we do object to the fad; to deserting the firm ground of knowledge, and running wild over every new operative procedure introduced. Operate, for heaven's sake, on every case that really needs it; but don't open up the abdomen for every trifling ailment that can be very easily cured by ordinary means.

PROLONGED SOMNOLENCE OR MALINGERING.—A case of prolonged sleep which is at present occupying the attention of medical circles in Germany is reported from Breslau. A miner, named Johann Latus, is at present an inmate of the hospital at Myslowitz, in Silesia, where he was admitted four and a half months ago, and since then all efforts to wake him have been fruitless. Dr. Albers, the doctor attending him, is of opinion that the apparent sleep is really a state of catalepsy, though medical science has on record no previous case of such a prolonged nature. He has arrived at this conclusion on account of all the limbs being absolutely rigid. The appearance of the man, however, betrays no sign of this. The body lies quite still, the breathing is regular, and there is a healthy color in the cheeks. Recently the body has become much less rigid, and the patient has even made some slight movement, without, however, the eyes opening or the condition of apparent sleep being in any way disturbed. In the four and a half months that the sleep has lasted the hair has increased in length, but the beard has remained stationary. Nourishment to the extent of two to three liters of milk is administered daily by a tube inserted into the throat.—*Hosp. Gazette.*

BIRTHS AND DEATHS IN LONDON.—Last week 2,643 birth and 3,355 deaths were registered. Allowing for increase of population, the births were 154 below, and the deaths 1,471 above, the average numbers in the corresponding weeks of the last ten years. The annual death rate per 1,000 from all causes, which had been 32.8, 40.0, and 46.0 in the preceding three weeks, fell last week to 41.0. During the four weeks ending on Saturday last the death rate averaged 40.0 per 1,000, being 15.5 per 1,000 above the mean rate in the corresponding periods of the ten years 1882-91. The 3,355 deaths included 60 from measles, 9 from scarlet fever, 24 from diphtheria, 155 from whooping-cough, 4 from enteric fever, 1 from an ill-defined form of continued fever, 10 from diarrhœa and dysentery, and not one from small-pox, typhus, or cholera; thus 263 deaths were referred to these diseases, being 53 above the corrected average weekly number. The deaths primarily attributed to influenza, which had continuously risen from 19 to 506 in the preceding five weeks, fell last week to 436; and in addition to these there were 71 cases in which influenza was noted as a secondary cause.

—*Hosp. Gazette*, Feb. 6, '92.

ANOTHER death from typhus fever occurred on North Brothers Island, New York, Monday, February 22. It is the fourth from that disease.

THE Board of Managers of the Woman's Hospital, at Twenty second street and North College avenue, announce Wednesday, March 9, as donation day. Any sum of money, large or small, for current expenses, the managers say they will gratefully receive, but they especially make an appeal for contributions to the building fund. Donations of coal, flour, groceries or provisions, sheeting, blankets, bedspreads, toweling, table linen, women's underclothing, bed-gowns, infants' clothing, old muslin and linen, crockery and household utensils, will also be acceptable.

THE women of Denver are engaged in raising $10,000 with which to contribute something notable to the Colorado exhibit at the Exposition. They purpose to get Preston Powers to reproduce in bronze, one-eighth larger than life-size, his celebrated group, "The Closing Era," which represents a dead buffalo and a solitary Indian in melancholly contemplation of it—the two forming, as Bierstadt says in commending the project, a "perpetuation in bronze of a dual departing race." After exhibition at Chicago, it is the intention to place the group in the capitol grounds in Denver.

PHYSOSTIGMA IN HICCOUGH.—Dr. H. M. Shallenberger, of Rochester, Pa., writes: "In a recent issue of the *Edinburgh Medical Journal* Mr. Smart calls attention to a case of obstinate hiccough from chronic alcoholism, so persistent as to prevent sleep and the ingestion of food. No relief followed the use of any drugs, except for the administration of dangerously large doses of morphine persisted in for six days. My object in this note is to assure the profession of the value of physostigma in these cases of obstinate hiccough, from whatever cause. The cases that I have seen have yielded to its influence within two or three days. The last case was precisely like the one reported by Mr. Smart, and forty-eight hours' use of this drug settled the hiccough. Another case of hysterical hiccough, of three months' duration, that had resisted all other agents, was speedily controlled in the same way. A good fluid extract was the form given. The dose is four to eight drops every two or three hours, pushed to the point of causing toxic symptoms."—*Med. Record.*

LAST week a man in the neighborhood of Rouen who was ailing for a considerable time from a chronic, and consequently incurable disease, apparently died, and his wife went to the doctor for the death certificate, which was given at once on the faith of the declaration of the woman, and especially so as the medical man had frequently seen the patient in the course of the illness. All the usual preparations were made for the burial, and the unfortunate man was carried off and laid snugly down in his grave, six feet deep. However, when the grave-digger was shoveling on the clay he thought he heard a noise from the coffin, but not being sure, he continued to fill in when the noise was repeated; this time there was no mistake, the man looked down and saw the foot part being vigorously kicked out. He immediately called for help, which was promptly at hand, and when the lid was removed they found the poor man alive, struggling in his bier. He was quickly removed and carried home, but only lived a few hours.—*Med. Press.*

THE death of Dr. George Kingsley removes the last of a brilliant trio of brothers. There was much in common between the three—Charles, Henry and George—and all were men of remarkable characters. The last named entered the medical profession, and his skill and energy in coping with an outbreak of cholera in 1848, were commemorated by Canon Kingsley in the portrait of Tom Thurwell, the hero of "Two Years Ago." His incurable love of traveling prevented him from settling down to the routine of medical practice. Later in life he married and settled down in Cambridge, but his heart was always in sunnier and less civilized regions. In order to gratify these nomadic tastes with ampler resources, he undertook the post of traveling companion towards young noblemen, among whom was Lord Pembroke. The latter's travels, edited by Dr. Kingsley, were published in book form, and met with considerable success.

ACADEMY OF NATURAL SCIENCES.—The new lecture hall of the Academy of Natural Sciences, on Nineteenth street, below Race, was formally opened Friday night, February 18, with an address by Rev. Dr. H. C. McCook, and a lecture of Dr. Harrison Allen, on "The Mechanism of the Mammalian Limb," properly illustrated with specimens. The building is of red stone, two stories high, with seats rising upward from the stage, and capable, with the gallery, of accommodating five hundred pupils. Its acoustic properties are excellent. It is designed to be the vestibule or entrance hall, hereafter, of the new museum building to be erected on the lot south to Cherry street.

Dr. McCook, in his address, referred to the valuable work done by the Academy in the past, and thought the citizens of Philadelphia should hasten to the completion of the museum. What a noble monument it would be, he said, were some one to contribute the price of the hall ($50,000), and thereby give his name, or that of some dear friend whom he would fain memorialize, to a building that will live through coming generations, and be a far better memorial than any monument reared in Laurel Hill.

SOUTHERN Pines, Moore county, N. C., is located on the highest sand ridge in the South. It has the driest climate, and the greatest amount of ozone is guaranteed by the forests of long-leaf pine, which covers a territory of fifty miles in each direction.

Last year a delegation of Northern physicians were invited to examine and report on the place as to its adaptability for those suffering with throat and lung troubles. The delegation reported through Dr. W. C. Wile, of Danbury, Conn., editor of the *New England Medical Journal.* At the end of the report the doctor says: "In conclusion, I am satisfied that Southern Pines possesses more of the qualifications of a genuine health resort, especially for those who are afflicted with pulmonary diseases and all of those of the air-passages, than any other place with which I am acquainted or have read about." With such information we advise our readers who desire to send consumptive patients South to make further investigation, for we have every reason to believe that Southern Pines must be a very desirable winter resort. Hon. J. T. Patrick, Secretary of the Southern Bureau of Information, can give reliable information; his office is at Raleigh, N. C., which is near Southern Pines. It is Mr. Patrick's special business to furnish information of the South to those seeking it. What he says can be relied on.

Special Article.

THE FATAL ILLNESS OF THE KHEDIVE.[1]

OFFICIAL REPORT OF DR. SALEM PACHA, UPON THE MALADY OF HIS HIGHNESS, MOHAMMED THEWFIK, KHEDIVE OF EGYPT

ON Friday, January 1, 1892, I was in Cairo (the Khedive having authorized me to remain there while he was at Helouan), when I was informed that His Highness had not gone to make the ordinary Wednesday prayer at noon at the mosque of Helouan, according to his custom. I went at once to Helouan to see His Highness and found him indisposed in his palace.

On the morning before my arrival His Highness had taken a purgative of mineral water. The examination that I made showed me that his temperature had risen to 37½° C. [99.5°] and that he had a slight cough, with pulse a little accelerated. His Highness, the Khedive, informed me that he had felt somewhat indisposed for two days. By the ausculation I made of his chest, I found only slight mucous râles.

The symptoms of the indisposition being those of *influenza*, I begged His Highness to take a diaphoretic infusion (of violet flowers), to diet himself, and to cover himself well.

I judged it my duty then to remain at Helouan, where I alighted at the hotel, in order to be at any instant at the orders of his Highness.

Saturday morning, January 2, I visited His Highness, and the examination showed that the temperature had risen a little, reaching 37.5° and some tenths. I counselled his highness to follow the treatment that I usually direct in this malady, consisting of the use of nitrate of quinine in cachets, with a potion of sodium bicarbonate and liquid magnesia. In the evening, on my visit, I found that the temperature had risen to 38° + C.; and I recommended continuance of the treatment.

Sunday, January 3, at 8 A.M., I visited His Highness and found him better than on the preceding day; the temperature was 37½°C., and the cough as ordinarily.

I directed again the quinine in cachets, as on the preceding day, and in place of the potion, I counselled the use of Vichy water with milk and syrup of codeine.

This treatment prescribed for His Highness was that which I had prescribed for him about two years previously, when he had influenza.

Monday morning, the symptoms of the malady had almost completely disappeared, the temperature was 37°C., and the cough had also lessened. His Highness feeling himself almost completely recovered, desired to go out this day, but I dissuaded him, recommending him to rest in the palace, and to observe a good regime for fear of a relapse. I counselled the continuance of the use of Vichy, milk and syrup of codeine.

Tuesday, January 5, at 8 A. M., I found on my visit to His Highness, that the temperature had again risen, and reached 37½°C., with general depression of his forces. As to the cough, it had not increased, but was as it had been on the preceding evening. In making a minute auscultation I found only some bronchial râles. This was a relapse. I had then to recommend him to follow the treatment directed, that is to say, the employment of quinine, with Vichy water, milk and syrup of codeine; meanwhile, observing a strict diet. In the evening of the same day, the temperature had again risen; at 3 P. M. it was at 38.5° + C. I counselled to continue the same treatment.

Wednesday, January 6, in the morning I visited His Highness according to custom, and I found his condition like that of the preceding evening, with constipation and headache. The temperature was 37.5°C. I counselled him to take two Seidlitz, and after their operation the preceding treatment should be continued. This Wednesday, at 6 P. M., about half an hour before sunset, I saw His Highness, who informed me that the Seidlitz had operated four times; that the regular treatment that I had prescribed had been followed, and that the headache had ceased. His Highness talked with me, at that moment lying on the cushions of his bed, in full possession of all his faculties. By the auscultation that I made I detected some bronchial râles. As to the pulmonary respiration, it was in a normal state, as well previously as subsequently; he had not any obstruction or pain in respiration.

I found the temperature of the body higher than in the morning, about 38.5°+, and the cough about as usual.

I begged His Highness to persist in the treatment prescribed. At 8 o'clock in the evening, I returned to the palace to inform the eunuch on duty that I would pass the night in my son's house, and not at the hotel, as on the preceding nights. I had at the same time the intention of seeing His Highness. The eunuch entered the harem and returned to tell me that His Highness reposed in his bed, and that there was no necessity for me to see him.

I returned then to my son's residence, which was on the east side of Helouan, and I remained there awaiting orders.

About four o'clock in the morning a soldier was despatched to me, telling me to come to the palace. Arriving quickly before the gate of the palace I received from the eunuch on duty the order to wait, which I did, in company with Mohammed Ali Bey, pharmacist of the court, and in the latter's apartment I waited about one hour. Having demanded the reason for which I was called, I learned that His Highness was seriously ill, and I was told that a special train had been fired up to bring two physicians from Cairo, Drs. Comanos Bey and Hess.

About five o'clock, a little before the arrival of these two doctors, I was told to enter, to ascertain the state of His Highness. On seeing him I was stupefied. The examination that I made showed me that His Highness was in an excessively comatose state, that he had great difficulty in respiration, and found himself in a complete enfeeblement with disseminated sub-crepitant râles. My Lord and Master made signs that he felt a pain at the lower part of the left side.

The temperature of the body was up to 40°+C. I had at that time the report of Dr. Issa Pacha Hamdy, who was there to watch His Highness, and who nursed him, and I learned from him that he had given a subcutaneous injection of morphine to relieve the pain in the side, and that the pulmonary complication detected had appeared at nine o'clock in the evening. My confrere also showed me that he had done all in his power in the way of treatment.

At this moment I interrogated Dr. Issa Pacha upon the state of the urine.

He responded to me that it was in a normal state. I was informed at the same time, that seeing the condition of His Highness becoming aggravated, it had been judged necessary to call me with two other physicians.

As upon my arrival I had recognized a complication, a broncho-pneumonic infiltration, which pre-

[1] Translated from *Le Phare d'Alexandrie*, a copy of which was forwarded to us by Dr. Grant Bey.

vailed rather on the left side than on the right, it was agreed with Dr. Issa Pacha to apply immediately dry cups to the base of the chest on the left side, and to employ tonic medicaments for the heart. Dr. Issa Pacha made accordingly himself the application of dry cups in my presence.

Drs. Comanos and Hess entered at that moment, about twenty minutes after my arrival in the presence of His Highness. I recounted to them in résumé the history of the malady. They examined the august invalid, when we entered, all four, a neighboring chamber for consultation. I showed the progress of the malady, and what I had directed from its beginning up to Wednesday, January 6, at 6 P. M., and imparted to Drs. Comanos and Hess, in presence of Issa Pacha, that which the latter had told me of the medication employed by him and the calmatives that he had administered, since the complication had supervened, that is to say, since 9 P. M.

The conclusion of the consultation was that His Highness, the Khedive, was attacked, as a complication of influenza, with a broncho pneumonic infiltration, which prevailed especially on the left side, with a high elevation of the temperature of the body and a great weakness of the heart. We decided also that the condition was dangerous, and that there was need of making a strong application of dry cups. It was consequently decided to summon M. Muller, specialist in this matter. My first diagnosis with Issa Pacha was thus confirmed in every particular.

We decided also to employ caffeine to strengthen the heart, with the application of a vesicatory to the posterior part of the left side of the chest. I had proposed a subcutaneous injection of bichloride of quinine, but it was preferred to hold to the caffeine, and to a blister on the chest, which was done. At the same time it was decided to make known officially the gravity of the malady, and to meet for another consultation about noon, after the arrival of M. Muller at Helouan, and the application of the dry cups.

I remained by His Highness with Dr. Issa Pacha, to see to the execution of the orders of the consultation.

As to Drs. Comanos and Hess, they returned to Cairo, promising to return about noon.

M. Muller arrived about 11 A. M. from Cairo, and applied the cups ordered.

About noon His Highness lost consciousness almost completely, but he had commenced to lose consciousness, little by little, before the first consultation, and even before my entrance. Then, at one hour after noon, the second consultation was held, and a new examination was made. We found that the state had become still more aggravated, and we began to see symptoms of *uremia*. We then made a careful examination of the bladder and the urinary passages, and detected a retention of urine.

In endeavoring to perform catheterization it was found impossible to introduce the elastic sound into the bladder, on account of the enlargement of the prostate, and of the constriction of the urethral canal. We had then to send for a special silver catheter, and drew off a certain quantity of urine, of a dark-brown (brun-foncé) color. This took place about 2.30 P. M.; it was at this moment that I perceived that the prostate and urinary passages had been diseased for some time, and after this discovery I affirmed that the disease of the urinary passages, and its treatment, if treatment there had been, were absolutely outside of my knowledge, and that they had even been concealed from me.

I immediately communicated this fact to the knowledge of Her Highness, the Khedivah.

We examined the urine to ascertain whether it contained albumen or not. We ended by finding albumen, and upon that we decided to take off the blister, and to employ caffeine by subcutaneous injections, as well as ether, quinine, the alcoholics, and also drastic purgatives, and ice to the head to combat the uremia.

At this second consultation it was decided to employ the injection of bichloride of quinine, as I had already proposed at the first consultation. At 5 P. M., or thereabouts, arrived Drs. Wildt, Ambron and Binet to reinforce the consulation, by order of the Council of Ministers, and it was decided to continue the same treatment.

We continued up to the last moment, and, in spite of all, the catastrophe arrived that has put all Egypt in mourning. To resume, it follows from that which precedes:

1. That His Highness, the Khedive, was attacked by the prevailing malady, the *influenza*.

2. That this malady had followed its ordinary course up to Wednesday evening, January 6, at six o'clock.

3. That the dangerous complication commenced the same Wednesday at 9 P. M., as His Excellency, Issa Pacha, has declared to me.

4. That near five o'clock, Thursday morning, I diagnosed, in accord with Issa Pacha, that there was a broncho-pneumonic infiltration; a diagnosis that was confirmed by the first consultation that was held about twenty minutes after my entry to the august invalid.

5. At the time of the second consultation, about 1 P. M., Friday, we recognized that he had had a malady of the urinary passages, the prostate and kidneys, absolutely without my knowledge before that moment, and that had even been completely hidden.

In my opinion, the broncho-pneumonic complication, that occurs often in *influenza*, was aggravated by the affection of the urinary apparatus.

(Signed) DR. SALEM.

[This translation has been made as literally as possible, even the French idiom being followed. Dr. Salem gives a very clear and straightforward account of his master's fatal illness; an account that is perfectly consistent and leaves nothing obscure, provided the facts be as he has stated. The remarkable point in this history is the fact that a ruler like the Khedive should have had a serious disease of his urinary apparatus, and yet this be unknown to his physicians until almost the hour of his death. One would think that in the case of a monarch who enjoyed the luxury of several physicians specially employed to attend exclusively to his health, they would make themselves familiar with the state of every function of the royal patient's body, his peculiarities, tendencies, etc. In point of fact they appear to have known less of his true condition than the ordinary family physician does of his patients.]

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